Suiségen Rezöl 1817

# MEDICAL COMMENTARIES,

## FOR THE YEARS 1781-82:

EXHIBITING

A CONCISE VIEW OF THE LATEST AND MOST IMPORTANT DISCOVERIES IN MEDICINE AND MEDICAL PHILOSOPHY.

COLLECTED AND PUBLISHED

BY

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*Neglecta reducit, sparsa colligit, utilia selegit, necessaria ostendit, sic utile.* BAGLIVI.

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VOLUME EIGHTH.

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# ADVERTISEMENT.

WHEN the firſt Part of this Volume was publiſhed, ſeveral circumſtances led me to be apprehenſive that I ſhould not be able to finiſh the remaining Parts with all the regularity I could have wiſhed. But I little imagined, that the interruption would have been unavoidably protracted for ſo long a time. After the delay which neceſſarily took place, I have thought it better to publiſh the whole remainder of the Volume at once, than in three ſeparate Parts. And I now propoſe, that, in place of Quarterly Numbers, this Publication ſhall hereafter be continued under the form of an Annual Volume. But it may in future happen, that from the want either of time or materials, I ſhall not be able to accompliſh my intentions even on this plan. In that event I ſhall probably, as on the preſent occaſion, publiſh in one Volume materials collected during two or even more years. To enable me, however, to conduct this Publication in future with that regularity which is to be wiſhed for, I beg leave to take this opportunity of ſoliciting the

Aſſiſtance of all who are zealous for the Improvement of Medicine, and for the Extenſion of uſeful Knowledge, but particularly of thoſe whoſe Remarks have formerly enriched this Work. The continuance of that aſſiſtance will be conſidered as a particular favour by their moſt obedient Servant,

ANDREW DUNCAN.

*Edinburgh, May* 12. 1783.

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TO THE

## READERS of the *Medical Commentaries.*

GENTLEMEN,

AT the commencement of the laſt volume of theſe Commentaries, a change was made in the title-page, for reaſons with which I reckoned it unneceſſary to trouble you. When I then, however, aſſumed to myſelf the compilation of a work which had formerly been preſented to the public as coming from the hands of a ſociety, I obſerved that the execution of the taſk I had undertaken would not hereafter be more dependent on my own exertions than it had been formerly. And accordingly, I have not been diſappointed either in aid from correſpondents at a diſtance, or in permanent aſſiſtance from ſome Medical friends at this place. Notwithſtanding this, however, it is now incumbent on me to ſolicit your indulgence for the

 irregular

irregular manner in which the publication has been conducted during last year.

This has in some measure arisen from circumstances which it was impossible for me to prevent. But it has also, in part proceeded from my post poning, on different occasions, the conduct of this undertaking, to engagements of a more urgent nature, and which did not admit of delay. And although it is my intention to continue this publication with as much regularity as I am able, yet I cannot promise that similar causes may not hereafter be productive of similar interruptions. May I therefore hope, that you will neither be disappointed nor offended should such irregularities again occur.

I flatter myself, however, that whatever irregularities may take place, will in no degree diminish the utility of this work. I am fully sensible, that if the materials and opportunities of information which I possess, were in the hands of any one of greater abilities, and more leisure, the advantages to be derived from a careful perusal of these Commentaries might be much increased. As far, however, as my time or talents can afford satisfaction to the liberal and candid mind, they shall be exerted with unremitting industry. Such

exertions

exertions will be a more powerful apology for future imperfections in this work, than any thing elſe that could be urged. And while I employ this argument for ſoliciting your indulgence, I hope it may alſo have ſome weight in procuring your aſſiſtance. When facts occur to you in practice, which, while they convey uſeful information to yourſelves, may alſo be inſtructive to others; the tranſmiſſion of theſe for publication in the Medical Commentaries, will confer a ſingular obligation on

Your moſt obedient Servant,

EDINBURGH, June 1. 1781.

ANDREW DUNCAN.

MEDI-

# MEDICAL

# COMMENTARIES.

## SECT. I.

*An Account of New Books.*

### I.

*Dissertatio de utilitate Electrisationis in Arte Medica, seu in curandis Morbis. Auctore* Joanne Bohadsch. Pragæ & Dresdæ. 4to.

THE treatise before us we find divided into four different chapters.

I. De effectu vis electricæ in diversis corporibus.



II. De

II. De theoria morborum in quibus electrisatio potissimum adhibenda est.

III. De therapeia hemiplegiæ.

IV. De observationibus hemiplegicorum per electrisationem curatorum.

In the first of these, our Author enumerates a great many experiments on the various effects of electricity on differents fluids and solid bodies; by all of which, it appeared evident that electricity, when applied to any substance for the space of several hours, has a considerable influence in producing a diminution of its weight.

Of these experiments we shall here present our readers with a short view.

Four ounces of river-water being put into a glass-vessel of four inches diameter, and being kept in an electrified state for the space of five hours, was in that time found to have lost eight grains of its weight; whereas, the same quantity of water, contained in a vessel of the same size, to which electricity was not applied, in the same space of time lost only three grains of its weight.

The same experiment being repeated, with the water contained in a tin instead of a glass vessel, the result was found to be exactly similar, with this difference, that the water in the electrified

trified tin-veſſel, in the ſame ſpace of time, was found to have loſt ten grains of its weight in place of eight.

In the ſame ſpace of time, and in ſimilar circumſtances, the following articles being kept in an electrified ſtate, were affected as follows:

| | | |
|---|---|---|
| Four ounces of olive oil, | - | loſt nothing. |
| of vinegar, | - | three grains. |
| of water impregnated with nitre, | | three grains. |
| of new milk, | - | four grains. |
| of urine, | - | nine grains. |
| of ſpirit of turpentine, | | ten grains. |
| of ſpirit of wine, | | ten grains. |
| of vol. ſp. of ſal amm. | | thirteen gr. |

The ſame experiments were repeated with the ſame liquids contained in veſſels of leſs diameters, when the quantity of fluid loſt by evaporation was found to diminiſh in proportion to the ſize of the veſſel made uſe of.

A pear weighing about four ounces and a half, being kept in an electrified ſtate for the ſpace of full five hours, loſt ſix grains of its original weight; whereas a pear of exactly the ſame weight, to which no electricity was applied,

ed, did not in that ſpace of time loſe any of its weight.

A piece of dried oak wood being kept in a ſimilar electrified ſtate for the ſame ſpace of time, did not loſe any of its original weight.

| | |
|---|---|
| A bundle of iron keys, - | loſt nothing. |
| Two new laid eggs, - | two grains. |
| A piece of new-baked bread, | three grains. |
| A piece of raw beef, - | three grains. |
| A piece of boiled beef, - | four grains. |
| A piece of moiſt ſponge, - | ſix grains. |
| A bunch of grapes, - | ſeven grains. |

From theſe our Author draws the following concluſions:

1. That electricity increaſes the natural evaporation of liquids, unleſs ſuch liquids are poſſeſſed of a very great degree of viſcidity, as is the caſe, he obſerves, with olive oil.

2. That this increaſe in the evaporation of liquids, produced by electricity, is in proportion to their degree of volatility.

3. That electricity in this reſpect acts with greater influence on fluids contained in metallic than on thoſe contained in glaſs veſſels.

4. That this increaſe of evaporation produced by electricity on liquids, is in proportion to the extent

extent of their ſurfaces expoſed to the atmoſphere; and

5. That electricity has an evident effect in diminiſhing the weight even of ſolid bodies, when ſuch a quantity of moiſture is contained in them as is neceſſary for the purpoſe of evaporation.

Our Author now proceeds to ſhew, that electricity being applied for ſome time to veſſels replete with fluids, an increaſed diſcharge of their contents is thereby always produced; as a proof of which, the following experiment is related.

Let a common egg be perforated at one end, ſo as to diſcharge all its contents, both the white and yolk; and a ſiphon being introduced, ſo as not to touch the bottom of the egg, let it be completely filled with water, and then weighed. The egg is then to be emptied by making the water paſs through the ſiphon, and by weighing again, it may be known exactly what quantity of water is diſcharged in a given time. The egg is now to be filled again, and on being electrified for ſome hours, the water contained in it will be found to flow with much greater rapidity than when no electricity was applied. This experiment, however, we are informed, will not

ſucceed,

ſucceed, if inſtruments are uſed of larger capacities than thoſe deſcribed.

That the vegetation of plants is conſiderably increaſed by the proper application of electricity has long been known; as a proof of which, the following experiment is related by our Author.

Two veſſels exactly ſimilar being filled with earth, the ſame quantity of muſtard-ſeed was ſown in each, and both being placed upon the ſame bench, a quantity of water was now and then ſprinkled upon them. This was done on the 9th of October.

On the 11th, one of the veſſels was electrified at different times for the ſpace of ten hours. In other reſpects the treatment of both continued to be exactly the ſame.

On the 13th, the electrified veſſel puſhed forth three plants of muſtard, but no appearance of vegetation was obſervable in the other. This evening electricity was again applied for the ſpace of three hours to the veſſel formerly electrified.

On the 14th, new plants of muſtard were obſerved in the electrified veſſel, while one only appeared in the other. The former was this day again electrified for the ſpace of five hours.

The

The ſame kind of management was continued till the 19th, when all the ſeed in the electrified pot was found to have produced plants; and theſe at leaſt four times the length of thoſe in the other; while in this laſt too, only three plants were found to have ſprung from all the ſeed that was ſown. We are here told too, that this difference in the proceſs of vegetation could not ariſe from the ſeed in the one pot being good and the other bad; for no choice had been made, and in fact the ſeed in the pot which was not electrified did at laſt all germinate. The ſame experiment we are informed has been repeated on different plants, and uniformly with a ſimilar reſult.

In another ſection of this chapter, various experiments are related, all tending to ſhew, that electricity has a conſiderable influence in promoting the natural perſpiration of animals. Theſe experiments were made with whelps, pigeons, and other animals; and an increaſed degree of perſpiration was always found to be produced by the application of electricity.

In the 2d and 3d chapters of this Work, our Author delivers the theory of hemiplegia; and in the 4th and laſt chapter, ſome caſes are related,

ted, in which the good effects of electricity in the cure of hemiplegia were very evident.

A chairman, 20 years of age, of a tall ſtature and corpulent habit of body, had for ten years been afflicted with hemiplegia. He could not walk even with the aſſiſtance of a cruch, but with great difficulty. The eye of the affected ſide was become altogether uſeleſs; and the eye of the oppoſite ſide was now ſo weak as to put it out of his power to read ſmall printed books. The hand of the paralytic ſide was very feeble in its motions, and had loſt almoſt entirely the ſenſe of feeling; and together with theſe and other ſymptoms of hemiplegia the patient was much tormented with lumbago.

May 29. He was this day electrified for the ſpace of half an hour, by taking ſparks from the hand and fingers of the arm affected; and likewiſe from the eye of the diſeaſed ſide.

30th. The patient ſlept better than uſual laſt night. He was this day electrified as before; and the weak ſide was ordered to be well rubbed at bed-time with warm cloths.

June 4. The electricity was ſtill continued; one conſtant effect of it, was a conſiderable flow of tears. He now could diſtinguiſh even ſmall objects,

objects, and could walk with much greater ease than before.

27th. The electricity was hitherto continued; the patient got gradually better, and is at this time perfectly well. The eye, of which he lost the use many years ago, still continues indeed in the same state. Other three cases are afterwards related by our Author, in which the effects of electricity in the cure of this disorder were very remarkable; and we shall conclude our account of this Work by a short account of one of them.

A young man, 15 years of age, had laboured under a hemiplegia from his infancy; and a great variety of remedies had been had recourse to, but with no effect. The arm and leg of the left side were much emaciated; some degree of feeling still remained; but the arm was so debilitated, that the hand could neither grasp nor retain any thing.

On the 8th of June, electricity was tried, and was continued almost daily till the 20th.

On the 13th, the affected arm was become somewhat stronger, and prickling pains were felt in it through the night.

On

On the 17th, the arm was become ſtronger, and had even begun to receive an increaſe in bulk.

By the 17th of July he was almoſt well; he could now eaſily carry a weight of 30 pounds; and on the 20th he was diſmiſſed cured.

II.

*Specimen Inaugurale Medicum, ſiſtens experimenta quædam, quibus conſtitit, eas partes eſſe ſenſu præditas, quibus Hallerus cum aliis quibuſdam omnem ſentiendi facultatem cum irritabilitate denegat. Auctore* Ignatio Radniczky. 4to. Pragæ.

SEVERAL years ago a doctrine was introduced to the world, by the late celebrated Haller and his diſciples, tending to prove, that the tendons, perioſteum, dura mater, and ſome other membranous parts, are all deſtitute of ſenſation. Various anſwers have been publiſhed to this opinion; but as the Work now before us enters more fully upon this inveſtigation than any we have met with, and as the Author's ideas are all ſupported by a ſeries of well conducted experiments, we ſhall therefore give a particular detail of

of ſuch of theſe as appear to be moſt concluſive.

This Work is divided into four ſections: The firſt is entitled, De tendinibus; the ſecond, De perioſteo & pericranio; the third, De dura & pia matre; and the fourth, De pleura & peritonæo.

SECT I. *De Tendinibus.*

A middle ſized dog was the ſubject of the firſt of theſe experiments; which was performed, we are told, in the preſence of Profeſſor M'Niven, and ſeveral other Members of the Univerſity.

The animal being properly ſecured, the ſkin was cut, in a longitudinal direction, along the courſe of the tendo Achillis. During this inciſion, the dog appeared to be in very great pain; it was obſerved, however, that although he did not complain, either upon puncturing or cutting off a piece of ſkin, previouſly ſeparated from the parts below, yet that the pain was conſtantly renewed, on attempting to diſſect a portion of ſkin not yet detached from the contiguous parts.

The tendon with its ſheath being now laid bare, a very ſlight degree of irritation with a

needle, was found to produce a great degree of pain; but leaſt any fallacy might occur from the tendon ſtill remaining covered with its vagina, it was at laſt perfectly denuded, when the ſame degree of irritation was attended with the ſame effect as before. A needle being puſhed into the ſubſtance of the tendon, evidently occaſioned very ſevere pain; and the needle being allowed to remain there for ſome time, it was afterwards found, in withdrawing it, that the animal complained ſeverely on its being in the leaſt degree moved. Violent ſigns of pain, too, occurred on dividing, even with a cutting inſtrument, a few of the fibres of this tendon.

In the eighth experiment on this ſubject, the tendon of one of the muſcles in the leg of a horſe was laid entirely bare; and it was uniformly obſerved, that on puncturing the tendon with a needle, the animal made violent exertions, in order to extricate himſelf from his confinement. The ſame degree of feeling, however, did not ſeem to occur from cutting off a ſlice entirely from any portion of the tendon.

In experiment ninth, the external oblique muſcle of the abdomen in a dog was laid bare; and, on the application of oil of vitriol to the aponeuroſis

aponeurosis of that muscle, only a slight degree of uneasiness seemed to ensue; but the animal appeared evidently to suffer the most violent pain, either from pressing these two parts between two sharp bodies, or from puncturing them with a lancet.

In the twelfth and last experiment of this section, which we mean to communicate, there is related the case of a soldier, whose hand had been so severely cut as to induce over the whole of it a tedious dangerous suppuration; and on the matter being evacuated, some of the tendons of the fingers, particularly these of the perforans and perforatus muscles, were laid entirely bare. In this case, we are told, the sensibility of tendons appeared to be great indeed; for although the patient was of a robust constitution, yet if by accident, at any of the dressings, these tendons happened to be touched by the probe, even in the most gentle manner, the most violent pain, to such a degree almost as to induce fainting, was instantaneously produced. From these, and various other experiments on the same subject, no doubt, our Author thinks, can remain of tendons being possessed of a very considerable degree of sensibility.

## Sect. II. *De Periosteo, atque Pericranio.*

Experiment I. A middle sized dog being properly secured, the teguments of the thorax were dissected off, leaving the ribs covered with the periosteum only. On beginning to separate the periosteum from the bone, the dog complained severely: he became again quiet on desisting from the operation; but a very violent degree of pain seemed always to be induced, so soon as the scalpel was again applied to the periosteum.

Experiment II. The same experiment with the foregoing was put in practice with a horse, and the result was exactly similar, the horse always exhibiting certain signs of his suffering severely, as soon as any attempt was made upon the periosteum.

Experiment III. The pericranium of a dog being denuded of the common teguments, the animal complained slightly on any attempt being made to irritate that membrane with a lancet. On touching it with lapis infernalis, a more severe degree of pain seemed to ensue; but the most violent torture was induced by the application of a single drop of oil

of vitriol. The pericranium being rubbed with a ſponge immerſed in cold water, likewiſe created a great degree of pain.

EXPERIMENT IV. The perioſteum in the leg of a dog being laid perfectly bare, by diſſecting off the common teguments, muſcles, and tendons, a very violent degree of pain was found to be induced, by endeavouring to ſeparate the perioſteum from the bone. This was likewiſe the caſe by applying butter of antimony to the ſurface of that membrane.

EXPERIMENTS V. and VI. being all that were made upon this ſubject, tended to ſhew evidently, that the perioſteum is poſſeſſed of a very conſiderable degree of ſenſibility. Independently of the reſult of theſe experiments, by which the ſenſibility of the perioſteum appears to be conſiderable, the idea, our Author obſerves, is ſufficiently confirmed, merely by the common and well known effect which inflammation always produces on that membrane; no part of the body, when in an inflamed ſtate, being attended with more exquiſite pain than the perioſteum.

## Sect. III. *De Dura, atque Pia Matre.*

Experiment I. The ſkin and other teguments being diſſected from the ſide of a dog's head, the trepan was applied, ſo as to lay the dura mater entirely bare. In this ſtate the membrane was gently fretted with the point of a ſcalpel, and ſome degree of pain was thereby produced; but a more evident and more violent degree of it ſucceeded to the application of the vitriolic acid.

Experiment II. The ſame experiment with the preceding was repeated upon other two dogs; and in both, the moſt violent degree of pain appeared to be produced by the application of the vitriolic acid to the dura mater.

Experiment III. In a girl ten years of age, whoſe ſkull had been ſo much fractured as to render it neceſſary to take away different portions of it, by which a very conſiderable part of the dura mater was laid quite bare, the moſt violent degree of pain was produced at the different dreſſings, when, either inadvertently or by deſign, that member happened to be preſſed upon.

With

With reſpect to the *pia mater*, our Author does not adduce any direct experiments in proof of its ſenſibility; but as the external covering of the brain, the dura mater, is evidently poſſeſſed of a conſiderable degree of ſenſibility, and, as he ſuppoſes the pia mater to be equally well furniſhed with nerves, he therefore thinks it extremely probable, that it muſt poſſeſs no ſmall ſhare of ſenſibility.

### Sect. IV. *De Pleura & Peritonæo.*

Experiment I. The pleura of a horſe being laid bare, and the animal being again ſufficiently quiet after the terror occaſioned by the diſſection of the teguments and intercoſtal muſcles, ſuch a degree of pain was produced, merely by touching that membrane with the point of a finger, that the horſe jumped as if he had been convulſed.

Experiment II. On repeating the ſame experiment upon a dog, the diſtance between the ribs was too inconſiderable to admit of the intercoſtal muſcles being properly ſeparated from the pleura; in order, therefore, to prevent all manner of fallacy from any muſcular fibres remaining un-

divided, the point of a ſcalpel was puſhed into the cavity of the cheſt, and afterwards made to preſs back and rub upon the internal ſurface of the pleura; and even in this manner ſuch a degree of pain was produced, as made it almoſt impoſſible for four people to retain the dog in his place.

EXPERIMENT III. The ſame experiment being repeated upon other two dogs, the reſult was found to be the ſame.

EXPERIMENT IV. The teguments and muſcles of the abdomen in a dog being cut open, by an inciſion along the courſe of the linea alba, the peritonæum was thus laid bare; and as ſoon as the animal had recovered from the fright he had been put into, the peritonæum was ſlightly touched with a piece of timber wet with oil of vitriol. He inſtantly thereafter began to breathe and moan ſo ſtrongly, that a rupture was produced in the peritonæum, at which all the inteſtines were immediately protruded.

EXPERIMENT V. The ſame experiment with the preceding being repeated, not only in a dog, but in other animals, was uniformly found to be attended with a ſimilar reſult.

Our Author however acknowledges, that theſe experiments upon the peritonæum were by no means

means ſo concluſive as thoſe upon the pleura and other parts before related; for this membrane being ſo very thin and delicate as to burſt very ſoon after the application of the cauſtic, its effects were thereby rendered leſs obvious than otherwiſe they probably might have been. Upon the whole, however, he concludes, that the tendons, perioſteum, pericranium, dura mater, and pleura, appear evidently to poſſeſs a very conſiderable degree of ſenſibility.

## III.

*Obſervations on the different Methods of Treating the Venereal Diſeaſe. By* William Deaſe, *Surgeon to the united Hoſpitals of St Nicholas and St Catharine*, Dublin.

AS the Work now before us is divided into different ſections, we ſhall here give a general account of their contents, and ſhall afterwards ſelect from each of them ſuch parts as appear to be of moſt importance.

The introduction exhibits a view of the opinions of the moſt reſpectable authors on the treatment of the venereal diſeaſe.

SECT.

Sect. I. Contains a general defcription of the venereal difeafe, and its propagation.

Sect. II. Treats of a clap, and the method of curing it.

Sect. III. Of the inflation of the penis, phymofis, and paraphymofis.

Sect. IV. Of the fwelled tefticle.

Sect. V. Of buboes.

Sect VI. Of the venereal ftrangury; and

Sect. VII. Of the confirmed pox.

Mr Deafe having, in the firft fection, given a general defcription of the venereal difeafe, proceeds in the next fection to the confideration of the clap and its treatment. It has been advanced, he fays, by many refpectable authors, particularly by Aftruc, Van Swieten, and Fordyce, that in cafes of clap, the running proceeds from an ulceration either in the cells of the urethra, Cowper's glands, the proftate gland or veficulæ feminales; but our Author is of a very different opinion, for on diffecting the bodies of fuch as actually died with a running upon them, he never found that any of thefe parts were affected in the manner which thofe authors defcribe, the difeafe appearing to confift folely in an abrafion of the natural mucus of the urethra, produced either by an

an excoriation or inflammatory affection of the membrane lining the paſſage.

The principal difference in claps, he thinks, depends on the degree of inflammation which occurs; and he aſſerts from experience, that thoſe claps which, in the beginning, are attended with a ſmart degree of inflammation, are commonly more eaſily cured than thoſe wherein the inflammatory ſymptoms are more trifling.

In the firſt or inflammatory ſtage of a clap, the treatment here recommended reſts entirely on a plentiful uſe of diluent drinks, which, by increaſing the quantity of urine, anſwer better, we are told, than any injection, for clearing the urethra of the matter collected in it: The patient, at the ſame time, is deſired to bathe or foment the parts affected very frequently; he muſt alſo, however, take care to keep his belly eaſy by any of the cooling purgatives. General blood-letting, as adviſed by many in this ſtage of the diſeaſe, has never, by our Author, been found neceſſary; and he exclaims greatly againſt the uſe of opiates, having uniformly found that they rendered patients much worſe after the temporary eaſe, which they commonly procure, was terminated.

Our

Our Author is by no means a favourer of thoſe irritating injections, which of late have been ſo commonly recommended in this diſorder; the only injection he adviſes, is a mercurial ſolution, wherein crude mercury is ſuſpended in ſome watery medium, by means of gum Arabic. By the uſe of this injection, at the ſame time that the patient is put upon a gentle courſe of a mild mercurial pill, the diſorder, we are told, will in general be very much ſhortened; and we need be under no apprehenſions, our Author remarks, of thus prematurely ſuppreſſing the running, or of laying the foundation for calloſities, or ſtrictures; for this injection, he ſays, poſſeſſes no aſtringent quality, but ſpecifically, as it were, heals any excoriation with which the membrane of the urethra may be affected.

For the cure of a gleet, our Author recommends ſea-bathing, chalybeate waters and tonic remedies in general, with abſtinence from exceſſive venery, at the ſame time that a ſuitable regimen is to be attended to; but when it ſo happens that a gleet or running is kept up by an ulcer in the urethra, we are then deſired to have recourſe to bougies.

In the phymosis, when the patient is young and plethoric, the skin hot, and the pulse quick, blood-letting, our Author thinks, will be advisable; but he does not recommend the practice in any other circumstances of the disorder. He rests the cure chiefly on fomenting the parts frequently with any common warm fomentation, in which a considerable quantity of Goulard's extract of lead has been mixed. Where the pain is so violent as to prevent rest, a paregoric is advised at night, and the patient is directed to have three or four stools daily. All local mercurial preparations are desired to be avoided, for even the mercurial ointment rubbed upon the parts, exasperates amazingly every symptom.

In order to prevent any matter from lodging between the prepuce and glans, frequent injections are recommended of linseed-tea and Goulard's extract; and by attending properly to this circumstance, it very rarely happens, he observes, that we need have recourse to the operation of laying the prepuce open.

In the paraphymosis, the same antiphlogistic course is recommended as for the phymosis; the operation of laying the stricture completely open, very seldom, if ever, becomes necessary; but

but two ſmall inciſions being made on each ſide of the frænum with a lancet, in ſome caſes, we are told, do ſervice.

In the treatment of a ſwelled teſticle, a ſpeedy reſolution, our Author remarks, ſhould be our chief object; and as a premature ſuppreſſion of the running is the moſt general cauſe of this complaint, nothing therefore ſhould be neglected which can in any degree contribute to its return.

As the ſudden ſuppreſſion of a running in caſes of clap, depends moſt frequently on the ſymptoms of inflammation running very high, the moſt effectual remedies for inducing a return of the diſcharge, are blood-letting, gentle laxatives, a ſlender regimen, reſt of body, and the plentiful uſe of diluents.

When treating of buboes, Mr Deaſe obſerves, that from whatever cauſe they proceed, whether from an abſorption of matter in caſes of chancres, or from a premature ſuppreſſion of a venereal running, in every event, if they can be brought to a laudable ſuppuration, it will much facilitate the eaſy expulſion of the virus, and abridge the cure.

In ſuch caſes, again, where buboes do not come kindly forward to ſuppuration, and where the glands remain hard and indolent, it contributes much, he ſays, to their diſcuſſion, that mercury be made to paſs immediately through them, which he adviſes to be done by rubbing the thigh and leg of the affected ſide with mercurial ointment.

Our Author now proceeds to the conſideration of the venereal ſtrangury, a ſymptom more to be dreaded, as being attended with more pain and danger than almoſt any other that occurs in this diſorder.

The ſeveral cauſes of this complaint may be reduced, Mr Deaſe obſerves, to the following: Carnoſities or caruncles; conſtrictions in different parts of the urethra, from the callous cicatrices of former ulcers; enlargement of the urethral glands, that ſerve to ſeparate the mucus, generally attended with a varicoſe ſtate of the veſſels; callous or fungous ulcers ſeated about the excretory ducts of the proſtate gland, veſiculæ ſeminales, and urethral glands; an enlargement of the veru montanum; and, *laſtly*, an enlargement of the proſtate gland itſelf.

After various remarks on theſe different cauſes of the diſeaſe, he proceeds to obſerve, that for

for the cure of all of them, practitioners unanimously have recourse to the bougie, a variety of forms for which may be found in most authors who have treated on this subject. But all of them, our Author observes, are liable to one capital objection, which is, that unless where the obstacles in the urethra are such as oppose but a slight resistance, as the bougies do not possess a sufficient degree of elastic firmness to prevent them from losing their form, if we attempt to introduce them beyond any considerable obstacle, they bend. Or if they be insinuated by force any way through the stricture, it is in a tortuous manner, so that upon extraction the end appears broken and twisted like a cork-screw. This, he says, is of great disadvantage, as it excites much unnecessary pain, without answering our intention.

To obviate the consequence of these defects, Mr Dease has, for many years past, formed his bougies on cat-gut of a proportionable thickness. This, he says, procures us all the advantages derived from their possessing a proper degree of firmness and flexibility, without any danger either of their breaking or becoming twisted; and their introduction is at the same time attended

tended with leſs pain than that of the common bougies.

With reſpect to the compoſition of the bougie plaiſter, it ought to be adapted to our intention of procuring a ſuppuration, or of healing the parts affected. Bougies, therefore, may be diſtinguiſhed into ſuppurative and epulotic, and the following forms are recommended by our Author.

For the ſuppurative; Two ounces of old diachylon, one ounce of mercurial plaiſter, and half an ounce of crude antimony, finely levigated.

For the epulotic; Melted wax, a pound; Goulard's extract of lead, two ounces; or,

Half a pound of yellow wax; olive oil, one pound; red lead, finely levigated, ten ounces; melt over a ſlow fire, and boil them to a proper conſiſtence.

At the ſame time that the patient is put upon a continued and prudent uſe of theſe bougies, Mr Deaſe recommends it as the ſafeſt practice, almoſt in every caſe, to adviſe a courſe of mercury, ſo as to ſecure, with as much certainty as poſſible, a total extinction of the venereal virus.

In the treatment of a confirmed pox, we are deſired by all means to introduce the mercury

intended to be ufed, in the moft gradual manner; and not to endeavour at once to throw a great quantity of the medicine into the fyftem. Such a quantity, however, ought at laft to be introduced, as to keep up a moderate fpitting, to the extent of two or three pints or fo, in the 24 hours; for as mercury, when left to its own natural courfe, always tends to the mouth, and as it muft, if once introduced into the circulation, find its way out either by the fkin, bowels, falivary glands, or kidneys, our Author thinks that it is a more eligible method, and he afferts it from experience to be fo, to allow the medicine to produce and keep up a moderate falivation, than to endeavour to divert its operations, as is commonly done, to fome other emunctory.

In ordinary cafes of lues, he recommends friction with mercurial ointment, as the beft and fafeft method of introducing mercury to the fyftem; but in pocky cutaneous eruptions; in cafes of warts on the glans; exoftofis, and enlargements of the bones, the folution of corrofive fublimate, he fays, is preferable; and notwithftanding all that has been faid againft it, by Mr Pibrac, andvarious other authors, Mr Deafe, from his own experience, recommends it not

only

only as an efficacious, but as a very ſafe and eaſy remedy.

Several caſes are inſerted at the end of this Treatiſe, all tending to eſtabliſh the various points of practice, in which our Author, in different parts of his Work, has ventured to diſſent from thoſe who have gone before him.

## IV.

Henr. Fridr. Delii, Prof. Erlang. *&c. Diſſertatio de Taraxaco, præſertim Aquæ ejuſdem per Fermentationem paratæ, eximio uſu. 8vo.* Erlangæ.

VARIOUS ſynonimes have been applied to the plant here taken into conſideration, *viz.* taraxacum, leontodon, dens leonis, hieracium parvum, *&c.* and in Britain it is known by the name of dandelion.

Dandelion is one of the moſt common productions in this, as well as in every other country in Europe, and is accordingly well known to every botaniſt; but, as there are ſeveral varieties of the plant, and as the Author has given a very particular deſcription of that ſpecies of it uſed in his experiments, we therefore think

it right, in order to prevent ambiguity, to copy over this part of the Work.

" Radix fuſca, ut plurimum perpendicularis, " conoidea, digitum plus minuſve craſſa, pro " ætate plantæ brevior, longior, in adultis do- " drantalis et ultra, ſucco lacteo amaro turgida, " qui ſuccus recens ſau ciata radice, libero aëri " expoſitus, rubet. Per medium ſolidus tranſit " ſic dictus nervus, ſuperne, neque minus in " longitudine ſua media, haud raro ter, quater, " quinquies dividitur et ſubdivid itur radix, ita " ut quiſque truncus ſua folia protrudat.

" Folia oblonga, humi procumbentia, in adul- " tis obſcurius viridia, immo in annoſioribus " magna ex parte rubeſcentia ; in principio e " radice ſurgentia, inferius quaſi amplexicaulia. " Lata magis coſta, intus cava eſt, margo folia " ceus. Superior et inferior ſuperficies folii " compluribus minoribus, et facile cedentibus, " aculeis, prædita. Leviter lanuginoſa porro " ſunt folia, ad utramque coſtæ marginem uſque " alte inciſa. Quælibet ſic multoties diſſecti " folii particula iterum ſæpiuſcule ab utroque la- " tere inſiſa pennatimque fere diviſa eſt, et laci- " niata, in ſagittæ modum deſinens. Folium " itidem ſucco lacteo amaro turget.

" Caulis,

"Caulis, vel ſi mavis, ſcapus aut pedunculus "cingitur in principio radicalibus foliis, ſurget "inter ea e radice primum tenui mollugine ſti-"patus, plerumque unicus, non nodoſus, non "ramoſus ſi exceperis quod interdum duo vel "tres flores inſideant cauli, hinc fiat is ſuperne "bifidus, trifidus. Videmus etiam binos cau-"les ad latera concretos, et ſic parallelatim ſur-"gentes, quibus plantæ faſciatæ, quas Cl. Boeh-"merus peculiari programmate nuper deſcripſit, "augeri poſſent. Cavus et fiſtuloſus ſcapus, et "tenuis, et cylindraceus eſt, externe glaber, "longus; vidimus in pratis ulnarem, et ultra. "Si finditur ſecundum longitudinem, ſponte "partes, elaſtrorum more, convolvuntur, vel in "ſpiras abeunt. Succum, ut radices et folia "lactem amarum continent. An ſcapi folio-"rumque in nervo ejuſque ramis rubedo, reli-"quis omnibus partibus iiſdem, peculiarem va-"rietatem efficit? vix videtur.

"Calix duplex eſt. Inferior et exterior fere "foliaceus, brevior, tenuior, duodecim, ad vi-"ginti quinque uſque, laciniis conſtans, verſus "inferiora pedunculi reflexus. Superior et in-"terior tredecim vel quatuordecim, in majori-"bus ad viginti quatuor uſque, ſeriebus ſeu la-

 "cini

" cini oblongis imbricatis, conſtat, primum in-
" vicem concretis, ex antequam effloruerit flos
" ipſe, ſuperne in centro coëuntibus, dein de-
" hiſcentibus ex explicato flore, reflexis; ubi
" defloruerit, iterum arcte pappum ambeunt,
" donec evoluto pappo et maturis ſeminibus
" iterum verſus inferiora reflectantur. Proxime
" inferius thalamum includunt. Lacinias haſce
" calicis internas et ſuperiores minus arte ſqua-
" mas appellaveris, cum ſquamatum in plantis
" ea communiter ſit indoles, ut altera ſquama
" alteram ex parte tegat, *e g.* in *hieraciis* qui-
" buſdam, *cyanis*, quod ſecus ſe habet in noſtra
" planta.

" Flos ſemifloſculoſus eſt, plurimis ſcilicet ſe-
" mifloſculis flavis, androgynis, denſe in orbem
" poſitis, conſtat. Quilibet *ſemifloſculus* ſ. pe-
" talum monſtrat lingulam aliquam ſuperne trun-
" catam, ter quaterve leviter inciſam, margine
" leviter rubello donatam. Ligula hæc ambit
" in inferiori et fiſtuloſa ſua parte.

" *Stamen* quod ſeparatum, unicum videtur, et
" adhuc proprio involucro, ſecundum longitu-
" dinem *ſtriato*, ſeu vagina incluſum, ſuperne
" *capillamentum* bicorne, et polline flavo proli-
" fico conſperſum.

" Circum

"Circum *stigma* capitatum *pappus* adhuc tener "positus est.

"*Stilus brevis* cum *germine* recente, pistilli "complementum constituente, continuus.

"*Semina*, quibus, olim embryonibus, stamina "insidebant, per maturitatem brunnea complu-"ra, oblonga, scabra, e quatuor costis cardina-"libus composita, inter quæ spatium iterum du-"obus vel tribus lineolis distinctum est, ut sul-"cos referat. Costæ hæ et lineæ, per microsco-"pium visæ, et superiore parte sub pappo velut "unguiculi incisæ et echinatæ apparent. Ince-"dunt semina

"*Placentæ*, seu thalamo nudo punctato. Su-"perne semine unicuique adsidet.

"*Pappus* in longiorem stipitem exporrectus, "qui stipes nihil aliud quam ipse stylus est, elon-"gatus ab ipso semine, pappum ipsum in apice "ferens, in plura filamenta stellatim vel umbel-"latim dispositum.

"Semina hæc papposa natura vento late ubi-"que sparguntur. Terræ autem commissu, "post octo circiter dies protrudunt duo folia "seminalia ovata, seu

"Cotyledones, prout vocantur. Tertiam et "quartum foliolum, jam in margine non am-

"plius integrum, sed quinque vel septem acu-"minibus gaudet. Quintum et sextum incisum "pluries est, et jam lacinatum folia subsequentia "profundius, jam et latius incisa sunt, donec re-"liqua per ætatem eam formam adquirant quam "supra descripsimus. Altero demum anno plan-"tula ad perfectionem tendit, floret, ex quo "tum tempore perennis evadit."

To this accurate description of taraxacum, various experiments are added, which were instituted with a view of discovering the most effectual mode of obtaining the medicinal virtues of the plant; and upon the whole, our Author conludes, that the best method of exhibiting it as a remedy, is in the form of a vinous distilled water, obtained in the following manner.

To four pounds weight of the recent herb, properly bruised, an equal quantity of best Francfort wine was added; and a fermentation being induced, about a pound weight was obtained by distillation, of a vinous, spiritous, grateful, fragrant water, of somewhat a milky tinge.

The process being farther continued, a considerable quantity came over, of a weak, limpid, fragrant water; but this part of the produce was not supposed to contain so much of the medici-

nal

nal virtues of the plant as the vinous ſpirituous water.

This remedy is here highly extolled by our Author, in every diſorder where ſaponaceous, attenuating, or reſolvent medicines can be of uſe; particularly in aſthmatic diſorders, in coughs proceeding from obſtructions of the glands; and its powers in all hydropic affections, we are told, are very remarkable.

In ſupport of this aſſertion, the caſe of a young lady is particularly related, who, for a conſiderable time, had laboured under an aſcites; which, at the ſame time, was attended with an anaſarcous ſwelling over the whole body. All the uſual remedies having been tried without any advantage, and the diſeaſe daily continuing to advance, no hopes of a recovery were left; but the remedy now under conſideration being at laſt had recourſe to, great quantities of urine were thereby evacuated, the ſwelling ſubſided, and a total recovery was at laſt effected. It was given to the extent of four, ſix, and ſometimes eight ounces in the 24 hours.

Our Author does not pretend, that the diuretic powers of taraxacum is a new diſcovery; for ſo remarkable are its effects in promoting urine, that

that in ſome diſtricts, he obſerves, it is known by the appellation of *lectiminga* or *piſſe en lit.*

V.

*Obſervations on the Cure of the Gonorrhœa. By* Samuel Foart Simmons, M. D. F. R. S. *&c.* London.

AS Dr Simmons here confines himſelf to the conſideration of the gonorrhœa, ſuch ſymptoms only are taken notice of as are ſuppoſed to be mere local affections, and unconnected with any general infection of the ſyſtem.

It has of late been aſſerted, that gonorrhœa and lues venerea are different affections, originating from two diſtinct ſpecies of virus. Our Author, however, is of a very different opinion, and it would be happy for mankind, he obſerves, if the idea was well founded; but unfortunately, every day's experience, in his opinion, ſhews it to be erroneous; for it has been proved, he alleges, that the matter of a chancre introduced into the urethra will generate a gonorrhœa; and that the diſcharge of a gonorrhœa will produce a chancre, bubo, and lues.

Two

Two cafes are here related, in which poxes feemed evidently to be induced by the difcharge in gonorrhœa being fuppreffed by the ufe of aftringent injections, and from which our Author thinks we may fafely infer, that the matter of a gonorrhœa, abforbed and carried into the fyftem, may generate all the fymptoms of a confirmed lues. That it may produce this effect, however, he thinks it may perhaps be neceffary, though it is by no means certain, that it fhould be taken up from an ulcerated furface.

Our Author, after giving a very accurate defcription of the progrefs of the difeafe, and of its ufual fymptoms, proceeds to treat of the cure.

There are practitioners, he remarks, who, fuppofing that the body poffeffes powers to expel the virus, and that the difeafe has a certain period to run, are for leaving the cure to nature; or at leaft, content themfelves with affifting her by an antiphlogiftic regimen, gentle evacuations and the like.

That in many cafes the diforder admits of a natural cure, there can be no doubt; the increafed fecretion of the mucus carrying off the virus fafter than it is formed, till at length the infection is wholly removed. But it is equally certain,

certain, Dr Simmons obſerves, that in every caſe, by the application of ſuitable remedies to the inflamed parts, we may ſhorten the duration of the complaint, and abridge the ſufferings of the patient, with the ſame certainty and ſafety as we are enabled to remove the effects of an ophthalmia, or any other local inflammation, by proper topical applications: He at the ſame time allows, however, that occaſional blood-letting, a cooling diet, the liberal uſe of diluting liquors, and mild purges, are frequently uſed, and even neceſſary.

The topical remedies here recommended, conſiſt of different ſorts of injections, the ingredients of which are extremely various; but their modes of operation, Dr Simmons remarks, may be referred to their mucilaginous and ſedative, or to their detergent, ſtimulating, and aſtringent qualities. In the hands of ſkilful practitioners great advantages, he thinks, may be derived from the uſe of theſe remedies; but, on the other hand, an improper and unſeaſonable application of them may prove a ſource of irreparable miſchief to the patient.

Such injections only as will tend to lubricate the ſurface of the urethra, and to counteract and deſtroy the ſtimulus of the virus, ought to be

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ufed in the firft ftages of the difeafe; and by degrees, as the inflammation abates, we are defired to add fome mild aftringent preparation to a mucilaginous and fedative injection, taking care that its aftringency be fuited to the ftate of the difeafe, and to the irritability of the patient.

Of the various forms of aftringent injections made ufe of by practitioners, our Author gives the preference to mercurials; for they are all, he obferves, poffeffed of more or lefs aftringency; and it is to this property we are to afcribe their effects, the idea of their correcting the venereal virus having been originally introduced upon miftaken principles. Calomel mixed with the mucus of a gonorrhœa, has no more power, he thinks, in deftroying the infectious properties of that mucus than cerufe, or any other aftringent preparation; and a diluted folution of fublimate injected into the urethra, will, like a folution of verdigrife or blue vitriol, conftringe the mouths of the lacunæ; but this is all that it will do, for it will never leffen the infectious nature of the virus.

As gonorrhœa is very often a local affection, it may be imagined, our Author remarks, that the internal ufe of mercury is unneceffary towards

wards a cure. When the infection has been slight, and the inflammation and other symptoms trifling, he has indeed ventured to proceed without the use of mercury, particularly in weak, relaxed, irritable habits; but, whenever the discharge is violent, the inflammation considerable, or the seat of the disease high up in the urethra, a course of mercurials, he thinks, is always advisable.

When treating of the hernia humoralis, or swelled testicle, this symptom, our Author remarks, has been usually supposed to be occasioned by a translation of the morbific matter to the testicle, from the too sudden stoppage of the discharge of a gonorrhœa. Dr Simmons, however, we find, has adopted a different idea, and which Dr Monro, in his public lectures has for many years past endeavoured to inculcate; *viz.* that in all such instances, the swelling of the testicle is merely the effect of irritation, and of increased inflammation. There are no passages, he remarks, by which the morbific matter could pass from the urethra to the testicle. If it were taken up by the absorbents, instead of passing to the testis, it would be carried to the groin, and there produce buboes; and if the swelling was occasioned

occaſioned by the matter's being conveyed into the ſyſtem, and thus affecting the teſticle, this gland, as being the ſecreting organ, would be the firſt diſeaſed; whereas we conſtantly find, that the ſwelling firſt begins at the vas deferens, and proceeds backwards through the epididymis to the teſticle; and, in many caſes, the inflammation is entirely confined to the vas deferens and epididymis, the teſticle itſelf not being in the leaſt affected.

Blood-letting, ſuſpending the teſticle in a proper truſs, and a horizontal poſture, are recommended as the moſt effectual remedies. As the diſeaſe is ſuppoſed to be purely inflammatory, and altogether independent of the venereal virus, we are deſired to avoid mercurials: And for the ſame reaſon draſtic purges, and ſtrong emetics, although recommended by ſome writers, are condemned by our Author; and cold applications, ſuch as cloths dipped in vinegar, are recommended in preference to warm poultices and fomentations.

The *chordee*, or painful involuntary erection of the penis, occaſioned by the ſtimulus of the venereal virus on the inflamed membrane of the urethra, may in general be quieted by the internal

nal uſe of opiates, and by ſedative injections; and leeches applied near to the ſeat of the inflammation are likewiſe recommended: But there is a ſpecies of this ſpaſmodic erection, our Author obſerves, which goes off and returns at times, for the ſpace of ſeveral months, even after the inflammation has entirely ſubſided, and which yields more readily to a liberal uſe of Peruvian bark, than to any other remedy.

A *bubo*, our Author remarks, is now and then merely the effect of irritation; but in general, it is occaſioned by an abſorption of the venereal virus from the ſurface of the urethra, or from a chancre.

In the treatment of buboes, Dr Simmons recommends the diſperſion of the tumor in preference to ſuppuration; not only upon the principle of ſaving a great deal of unneceſſary pain to the patient, but from the riſk of throwing infection into the ſyſtem being thereby leſſened; for the large ulcerated ſurface, which always remains after the opening of a bubo, expoſes the patient more to the effects of abſorption, than can poſſibly happen from any ſmall quantity of matter, originally detained in an inflamed gland, being carried into the ſyſtem.

In

In order to difperfe venereal buboes, we are commonly advifed to rub mercurial unction on the fkin at the infides of the thighs, that the mercury, by paffing through the difeafed glands, may deftroy the virus; but this notion, our Author remarks, is founded on an erroneous principle; for the mercury applied in this manner acts merely by its ftimulus, and by thus increafing the inflammation, tends of courfe rather to haften than retard the fuppuration. Cold applications to the parts affected are here recommended in preference to every other; and buboes are faid to have been frequently difperfed, even after matter was formed, by the ufe of emetics.

In opening fuch buboes as have come to fuppuration, when they appear to have arifen from fimple irritation, a flight opening with a lancet, in a depending part of the tumor, will ufually be fufficient, but when the fuppuration has been tedious, and taken its origin from a chancre, we are directed to lay it open by cauftic. But even in the cafe of a buboe from a chancre, when the patient is of a good habit of body, and the tumor has maturated quickly, it heals fooner, we are told, when fuffered to break of itfelf, than it

ufually does when opened, either by cauftic or the knife.

In phymofis and paraphymofis, the ufe of Goulard's vegeto-mineral water is recommended in a particular manner; in general, warm applications are condemned, and we are defired to make ufe of no external remedy whatever, but in a cold ftate.

When treating of *chancres*, our Author remarks, that, in the greater number of cafes, they are to be confidered as local affections only, not occafioned by the venereal virus being firft abforbed and carried into the habit, and then thrown out again, but merely by the inflammation and ulceration arifing from particles of matter applied to the membranous furface of the glans and prepuce.

Objections have been made, our Author obferves, to the cure of a chancre by topical applications, on a fuppofition, that if the ulcer is healed by fuch means, the virus will be carried into the habit, and the patient be in danger of a conftitutional lues. This he believes has fometimes happened; but it has been only in cafes of large fpreading chancres, and where the means of preventing infection had been neglected.

Upon

Upon the whole, Dr Simmons concludes, that as a chancre is originally a local affection, the sooner we destroy the virus in the part, the more effectually we prevent internal infection; and an effectual method of doing this is recommended, which has long been inculcated here by Dr Monro, *viz*. the application of lunar caustic to the chancre, so as not only to make the sore throw off sloughs, but to destroy the very virus which gave rise to the disease. And, in support of an opinion long ago published by Mr Bell, as well as by some others, he proceeds to observe, that if, instead of thus destroying the virus in the part as early as possible, we suffer the chancre to continue to discharge for several weeks, we are certainly exposing the patient to the danger of infection, during all that time.

On the subject of *obstructions in the urethra*, caruncles, or small fungous excrescences in the passage, are commonly imagined, we are told, to be the cause of such disorders. But our Author is of a different opinion, and supposes, that strictures or contractions in different parts of the canal, are most frequently to be considered as the origin of such ailments; and a proper use of

bougies is recommended as the moſt effectual mode of treatment.

The diſſertation is concluded with an enquiry into the nature and cure of a gleet. When the venereal taint is effectually eradicated, aſtringent injections are recommended, together with the uſe of bark, chalybeate waters, and cold bathing, and large doſes of balſam of copaiva.

## VI.

*A Treatiſe of Midwifery, comprehending the whole Management of Female Complaints, and the Treatment of Children in early Infancy; to which are added, Preſcriptions for Women and Children, and Directions for Preparing variety of Food and Drinks adapted to the Circumſtances of lying-in Women. By* Alexander Hamilton, *Profeſſor of Midwifery in the Univerſity of Edinburgh, and Member of the Royal College of Surgeons.* 8*vo.* Edinburgh.

THE comprehenſive treatiſe of midwifery which is now before us, is chiefly intended for the uſe of female practitioners; and we are inclined to think, that thoſe who beſtow upon it an

an attentive reading, will have no hefitation in allowing, that it is better fitted for the purpofe intended, than any thing that has yet appeared in an Englifh drefs. A work of this kind, rendered univerfally and readily intelligible by diftinct arrangement, and fimplicity of ftyle, has been much wanted. The work before us, however, not only comprehends the moft important rules of delivery, and directions for the after treatment both of mother and child, but alfo gives the previous neceffary inftruction, in the moft plain and familiar manner, diveſted of every term which may not be fully and clearly underftood by any female qualified for the profeffion of midwifery. It may therefore, we think, be juftly confidered as a valuable acquifition to the public. To juftify this character, however, we muft refer our readers to the work itfelf: For, of a general fyftem, we cannot propofe to give a full or diftinct analyfis.

There can be little doubt, that the fuccefs of practitioners, in this branch of the medical art, muft, in fome meafure, depend on a knowledge of the ftructure and functions of thofe parts which are the immediate fubjects of the midwife's attention. The want of that knowledge muft con-

ſtantly expoſe the patient to the hazard of ſuffering from the ignorance and officiouſneſs of the practitioner, and may be conſidered as the ſource of errors in practice, which have been highly fatal in their conſequences. With the view, therefore, of removing this ſource of miſchief, the ingenious Profeſſor very properly introduces his ſubject with a conciſe but accurate deſcription of the bones of the baſin, the ſhape and dimenſions of its cavity, and its application to the paſſage of the child. He then deſcribes the ſeveral parts of the genital ſyſtem, explains their principal functions, and gives ſome account of generation, and of the periodical evacuation which diſtinguiſhes the ſex.

He next proceeds to give a detail of the diſeaſes ariſing from the irregularity of the menſes. And here he obſerves, that while thoſe women are moſt healthy who have this diſcharge in the moſt regular manner; on the contrary, thoſe who ſuffer bad health, either want it altogether, or have it ſparingly, exceſſively, or at irregular intervals. A prejudice, he obſerves, for a long time prevailed, that when the menſtrual evacuation was diminiſhed or ſuppreſſed, ſomething bad was retained in the habit. This aroſe from an

erroneous

erroneous opinion, that the menſtrual blood was of a poiſonous quality, and might by its vapour kill animals, deſtroy vegetables, ſtop fermentation and the like; and therefore, that a woman's preſence at theſe times was extremely dangerous; that if ſhe touched wine, it would immediately become ſour; if ſhe aſſiſted in making gellies, that they would never thicken; at ſalting meat, it would be ſpoiled. But although he conſiders theſe as being prejudices founded merely upon ſuperſtition, and looks upon the menſtrual diſcharge, in its natural ſtate, as being an evacuation of pure good blood, yet he conſiders it as liable, not only to the diſeaſes of the general maſs, but alſo to acrimony from ſtagnating in the vagina. He thinks, however, that when the conſtitution ſuffers from obſtruction, it is not from the retention of diſeaſed blood, but from the veſſels being overloaded, or from the ſudden ſtoppage of an accuſtomed evacuation. And he obſerves, that, in general, irregularities of the monthly evacuation are oftener the effect of ſome thing faulty in the habit, than the cauſe of the bad health which at that time occurs.

He obſerves, that, for the moſt diſtinct view of the complaints reſulting from this cauſe, they

may be reduced to three heads. 1*ſt*, Thoſe about the time of its commencement. 2*d*, Thoſe after the habit has been eſtabliſhed: And, 3*dly*, Thoſe about the time of its final ceſſation.

The firſt of theſe periods is to be viewed, he thinks, as a very critical ſeaſon with females; and he ſtrongly recommends prudent conduct in the management of them at this time. Late hours, exceſſive heat, particularly by dancing, or long confinement in crowded places, ought to be prohibited in the ſtrongeſt terms; and when there is reaſon to expect the approach of the menſtrual diſcharge, every thing which can diſcompoſe either mind or body is to be carefully ſhunned. The food ſhould be plain and ſimple, taking care, particularly, to avoid groſs aliment, and aſtringent drinks.

Under the ſecond period, he gives directions for the management in the different caſes of obſtruction or ſuppreſſion, of painful menſtruation, and of immoderate diſcharge. On the firſt of theſe ſubjects, he is of opinion, that there is not yet in the whole catalogue of medicines, any one which can be relied upon for that purpoſe. He admits, however, that purgatives, eſpecially thoſe tending to induce teneſmus, as the aloetic

purgatives;

purgatives; that exercife, dancing, riding, the cold bath, the warm bath, electricity, and the like, have at times been attended with the defired effect. But he remarks, that fince a remedy which in one inftance will prove mild, inoffenfive, or fuccefsful, will in another throw the patient into the moft violent nervous or hyfteric diforders, medicines of this kind ought to be given with great caution. When thefe medicines are employed, he directs, that they fhould not be uniformly continued, but begun about a week before the expected return, and continued for a few days after that, if the evacuation does not previoufly occur. In cafes of painful menftruation, he places the chief reliance on opiates, taking care, however, to counteract their binding quality by the ufe of gentle laxatives. And he further adds, that thefe meafures are to be employed only on emergencies, as they are with difficulty left off.

Where an exceffive menftrual difcharge occurs, he is of opinion, that more in general is to be expected from regimen than medicine. Cooling diet, cool air, and cold applications, as wet cloths frequently applied to the os externum, when the flooding is exceffive and dangerous,

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are the principal remedies. And to prevent the return of the diſorder, a light decoction of Peruvian bark, ſharpened with elixir of vitriol, is, he thinks, more to be depended upon than any other remedy.

During the laſt period, or the time of the final ceſſation of the menſes, he obſerves, that the ſymptoms which occur are extremely different, according to the conſtitution and circumſtances of the patient. The chief affections, however, may, he thinks, be referred to the following heads.

1. Thoſe of fulneſs, in conſequence of the ſudden ſtoppage of an uſual evacuation in full habits. 2. Frequent long-continued or immoderate floodings, in feeble and relaxed habits. And, 3*dly*, General affections of the ſyſtem, from an alteration of the conſtitution. For relieving the firſt of theſe, he recomends ſpare living, blood-letting at proper intervals, an open belly, and ſuitable exerciſe. Againſt a frequent or immoderate diſcharge in relaxed habits, he recommends, that the flux be checked by cold applications; that the painful ſymptoms be relieved by opiates; and that the conſtitution be afterwards ſtrengthened, when the patient is able to bear

bear it by the cold bath. But where, even at this period, the flooding appears to proceed from fulnefs, he recommends proper evacuations and cooling regimen. Where general affections of the fyftem take place, he confiders them as indicating a change in conftitution, requiring the aid of the moft fkilful and experienced of the profeffion, and beyond the province of the female practitioner, for whofe ufe this Treatife is chiefly intended. And by a fimilar recommendation, in every cafe where fimple and eafy meafures will not anfwer, if much good be not done, much mifchief may at leaft be frequently prevented.

He next treats of the various local affections of the genital parts, and gives particular directions for their prevention and cure. The nature of pregnancy, which leads to an explanation of the ftructure of the gravid uterus, the changes which it undergoes from conception, the progreffive evolutions of the ovum, the embryo and child, is the next fubject of confideration. This naturally leads him to confider the difeafes of pregnancy. Thefe he has referred to three claffes; 1*ft*, The complaints, fuch as thofe of breeding, which are confined to the early fta-

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ges of pregnancy. 2*dly*, Thofe which occur in the laft months, arifing from the ftraining of the womb, and its preffure on the neighbouring parts; and, 3*dly*, Thofe which are confined to no particular period, but happen at all the different terms of geftation. Of the treatment of the different affections falling under each, he gives a very accurate and minute detail. And the fubject is concluded with fome important cautions for the treatment of pregnant women.

The third Part of this Treatife comprehends the management of delivery. Labour, which he defines the effort of nature to expel the child, he confiders as of three kinds, natural, lingering and preternatural. Directions for the treatment in each of thefe cafes are delivered in the moft concife, accurate and judicious manner. The tendernefs to patients, and regard to female delicacy, which is inculcated in thefe directions, cannot efcape the obfervant reader; and the peculiar earneftnefs with which female practitioners are entreated to be diffident of their own abilities, and to have recourfe to fuperior affiftance, in cafes of doubt and danger, but at the fame time to be equally cautious of betraying timidity, impatience or diftruft, which

may

may give an unneceſſary alarm to the patient, if duly attended to, may be productive of the moſt uſeful conſequences.

This part of the ſubject is concluded with directions for the management of twins or triplets. This ſubject, in its nature intricate and perplexing, from the variety of opinions which prevail, is explained with preciſion and accuracy.

The next great diviſion of this Work reſpects the management of women after delivery. Here he carefully points out thoſe errors which have been moſt fatal; and conciſely delivers rules for treatment, ſuggeſted by common ſenſe and a faithful attention to the operations of nature. He then proceeds to give a detail of the diſeaſes incident to the child-bed ſtate. Under theſe he conſiders firſt accidents from delivery, as ſwelling and inflammation of the parts, occaſioned by bruiſes of the child, or ignorance of the practitioner, lacerations, inverſion of the womb, and the like; and then, diſeaſes more ſtrictly ſo called, under which he includes the treatment of faintings, floodings, after pains, inflammation of the womb, affections of the breaſts, the weed, the miliary, and the puerperal fevers.

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The laſt diviſion regards the management of children in infancy. And it is to be regretted, that the limits of the plan has prevented the Author from treating this intereſting ſubject with all the minuteneſs that could have been wiſhed. Here, however, he has ſuggeſted many uſeful advices for the prevention of thoſe diſeaſes to which the fatality of infancy may be imputed. Theſe are conſidered under the articles of cleanlineſs, clothing, purging, nurſing, air and exerciſe.

The diſeaſes themſelves are then ſhortly treated of in the following order. 1. The accidents occuring immediately at birth, or ſoon after, as thoſe ariſing from original malconformation, external injuries, and the like. *2dly*, The internal diſeaſes, as the red and yellow gum, ſickneſs, vomiting, gripes, ſore mouth, teething, *&c.* On each of theſe ſubjects, although his obſervations be ſhort, yet they are perſpicuous, and may have conſiderable effect in preventing improper treatment.

The Work is concluded with remarks on the qualifications which female practitioners ought to poſſeſs, and with directions for preparing food and drink adapted to the circumſtances of lying-

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in women, which may render this Work not only a valuable acquiſition to the female practitioner, but alſo to the intelligent mother and the careful nurſe.

## VII.

*An account of a Method for preſerving Water at Sea, from Putrefaction, and of reſtoring to the Water its original Pleaſantneſs and Purity, by a cheap and eaſy Proceſs: To which is added, a Mode of impregnating Water in large Quantities, with fixed air, for medicinal uſes, on board Ships and in Hoſpitals; and likewiſe a Proceſs for the Preparation of Artificial Yeaſt. By* Thomas Henry, F. R. S. *&c.* 8*vo.* Warrington.

THE Author of this Treatiſe introduces his ſubject, by deploring the loſs of ſuch a great number of men, as in long voyages at ſea, have, till of late, been uniformly carried off by ſcurvy. This dreadful calamity, he obſerves, takes its origin from putrid air, putrid proviſions, putrid water, a deficiency of freſh vegetables, and want of cleanlineſs; but he ſeems to think, that as putrid water is one of the prevalent cauſes

ses of the disorder, so a great deal may be done in preventing it, merely by a constant and plentiful supply of fresh water.

Our Author is by no means ignorant of the advantages to be derived from the mode of distilling sea-water, as lately introduced in the navy; but this he apprehends is only intended to furnish a partial supply of fresh water in cases of necessity; and that it must be altogether insufficient for the consumption of a large crew; whereas, his scheme aims at the constant preservation of water from the putrefaction to which it is exposed in long voyages.

A method of preserving water from putrefaction was some years ago proposed by the late Dr Alston. It consisted in adding a quantity of lime to every cask of water that substance having a strong antiseptic property, and water, as long as it retains the impregnation of lime, being never known to putrefy. But lime communicates a disagreeable taste to water, and, abstracted from that inconvenience, it might perhaps in many instances be detrimental.

To free the water, at the time of using it, from the lime, Dr Alston proposed the precipitation of the latter, by throwing into the water a

quantity

quantity of magnesia; on this principle, that as lime-stone is rendered soluble in water by its deprivation of fixed air, and has a greater affinity with that air than magnesia has, the particles of quick-lime would attract the air from the magnesia, and thereby becoming no longer soluble, would fall to the bottom and leave the water tasteless, and fit for œconomical purposes. Dr Alston's theory was just, but the expence attending it, owing to the price of magnesia, was such as to prevent the execution of the proposal.

A variety of experiments were made by our Author, in order to discover a cheap and easy method of precipitating the lime, so as to restore to water, impregnated with it, its original sweetness and pleasantness; and the result of these trials has fully answered his expectations.

We are here presented with engravings of the different utensils used in this process: For a proper idea of these, we must refer our readers to the Work itself; but a particular detail of the process we suppose will be very readily understood.

*The Method of impregnating Water with Quick-lime.*

To every cask of water of 120 gallons, add two pounds of well burnt quick-lime, either

 fresh

fresh from the kiln, or properly preserved. When the lime has been in the cask some minutes, and the heat and effervescence occasioned by the mixture are over, let the cask be stopped from any communication with the external air.

*The Method of freeing Water from the Lime, and restoring it to its original pure Sate.*

Let a cask be prepared, of a form somewhat narrower, in proportion to its depth, than usual. The top must be formed of one plank, and have a piece cut out of the centre, of a circular form, and as large as can be allowed, without weakening the sides too much. This piece, or bung, must be made to fit as closely as possible, and have an iron handle affixed to it for the purpose of lifting it, and of confining a weight which is to be laid on, to keep the bung from yielding to a small force from within. A small hole must be bored in the side of the top, which is to be exactly stopped with a plug, for a purpose to be explained in the sequel.

Fill this cask, which may be supposed to contain 60 gallons, secured on a convenient part of the deck, or slung up in the shrouds, with the lime-water drawn off clear from the sediment,

so

ſo as to avoid any viſible particles of lime floating in it; allowing ſufficient room for the air-veſſel, and a free ſpace of about half an inch between the ſurface of the water and the top of the caſk.

Let a veſſel be alſo prepared, capable of containing two gallons, or 1-30th of the capacity of the caſk. Into this veſſel introduce half a pound of marble, pure *unburnt* limeſtone, or chalk groſsly powdered, and two quarts of water. Then pour gradually on theſe, three ounces of ſtrong vitriolic acid, commonly called oil of vitriol, and ſtopping the mouth of the veſſel with a tubulated ſtopper, let it down by means of ſtrings into the caſk filled with lime-water. The fixed air let looſe from the mild calcareous earth, will bubble up through the lime-water. When this has continued about a minute, the bung is to be faſtened on, and a weight properly applied, ſo as to keep the bung in its place.

In about an hour, the bung may be removed, in order to ſee whether the diſcharge of air continues. If it has ceaſed, or be conſiderably abated, three ounces more of vitriolic acid is to be added, and the air-veſſel returned to its former ſtation in the caſk.

The time neceſſary for precipitating the lime from the water, will be in proportion to the briſkneſs of the effervefcence; but in general a few hours will be ſufficient. Should the firſt parcel of calcareous earth and vitriolic acid be unequal to the ſweetening of the lime-water, and no longer diſcharge air briſkly when agitated, the contents of the air-veſſel are to be poured out, and a freſh quantity of the ingredients ſubſtituted in their place.

When the water is become quite mild, the air-veſſel is to be taken out, and, if the calcareous earth continues to diſcharge air, let it be plunged into another caſk of lime-water, that there may be no needleſs expence of fixed air.

The ſpecific gravity of the lime is ſo much ſuperior to that of the water, that it will ſoon fall to the bottom of the caſk, when the operation is finiſhed. As ſoon as the water is become clear, it muſt be drawn off by a cock for uſe; or, if the caſk be wanted to purify other quantities of water, it may be drawn off ſooner into other veſſels to clarify.

The precipitated lime may be collected, and being now in the ſtate of chalk, and impalpably powdered, may be uſed inſtead of prepared

chalk,

chalk, for the medicinal purpofes to which that article is applied.

*Cautions to be obferved in thefe Proceffes.*

1. The quick-lime fhould be chofen, as pure, free from any foreign tafte, white, well burnt, and as frefh from the kiln, as can be obtained. What is carried to fea for future ufe, fhould be carefully packed up in clean tight cafks, fo as to preferve it from moifture and the action of the air.

2. The cafks into which the lime-water is put, fhould be perfectly clean and fweet; and thofe fhould be felected for this ufe, that are well feafoned and free from fap.

3. The water is to be firft poured into the air-veffel, then the calcareous earth, which is to pafs through a paper cone, to prevent its adhering to the fides of the mouth of the veffel; and *laftly*, the acid is to be added, no attention being paid to the mixing the earth and water intimately. By this means the acid attacks the calcareous earth gradually, and the veffel is in no danger of burfting by the too fudden explofion of the air. For the fame reafon, care fhould alfo be taken that the air-veffel be not fhaken too rapidly.

4. Gently agitating the upper part of the cask from time to time during the process, will accelerate the completion of it, by occasioning a quicker absorption of the fixed air; and the small plug must occasionally be taken from the hole in the top of the cask, to let out that part of the air which is not soluble in water.

5. The precipitated lime is to be cleared out of the cask after each time of using it; and the cask should be frequently washed thoroughly.

6. Care must be taken, that the mouth of the air-vessel be clear of calcareous earth, before the stopper be put in; and that the ends of the tubes in the stopper be not clogged up with any thing that may prevent the passage of the air through them.

7. Each ship should be provided with several of the air-vessels; and each vessel should have two or three tubulated stoppers adapted to it; the vessels and their stoppers to be marked with similar numbers.

8. The size and number of the purifying casks must be in proportion to the rate of the ship, and the convenience with which they can be managed.

9. If

9. If the caſk be left with the air-veſſel in it during the night, or for any conſiderable length of time, a ſmaller plug may be put into the ſmall hole in the top of the caſk, ſo as to leave it not quite air-tight.

10. If during the proceſs the fixed air ſhould eſcape by the edges of the round bung, it may be prevented by any ſlight luting, which may be eaſily removed when the bung is to be taken out.

11. It will be ſcarcely neceſſary to mention, that the air-veſſel, and the large circular bung-hole in the top of the caſk, are to be ſo proportioned, that the latter will eaſily admit of the paſſage of the former through its aperture.

Our Author now proceeds to communicate his method of impregnating water in large quantities with fixed air, ſo as to give it the properties of mineral water, for the uſe of the ſick on board of ſhips and in hoſpitals.

Dr Nooth's glaſs machine, with Mr Parker's and Mr Magellan's improvements, though admirably contrived for the preparation of ſmall quantities of artificial mineral water, is by much too ſmall for the ſickly crew of a large ſhip. To remedy this inconvenience, a mode is here pro-

 poſed,

posed, by which the same kind of process may be performed on a much larger scale; but as a distinct idea of the instruments recommended cannot be conveyed by description, such of our readers as wish for more particular information, must have recourse to the drawings with which Mr Henry has favoured us.

By the process here recommended by our Author, a plentiful supply of this medicinal water may be had at all times, and at a very trifling expence; which may not only be a preventive against putrid disorders, but even a powerful remedy when they actually exist.

As it is a matter of importance to procure fresh fermented bread at sea, our Author recommends the following process for obtaining artificial yeast, and for making bread by means of it.

Boil flour and water together to the consistence of treacle. When the mixture is become cold, fill a small cask with it, and let it be fully saturated with fixed air, in the manner directed by Dr Priestley and others, for impregnating water. Pour the mixture thus saturated, into one or more large bottles, or narrow-mouthed jars. Cover it over loosely with paper, and upon

on that put a ſlate or board, with a weight to keep it ſteady. Place the veſſel in a ſituation where the thermometer will ſtand from 70 to 80 degrees, and ſtir up the mixture two or three times in 24 hours. In about two days ſuch a degree of fermentation will have taken place as to give the mixture the appearance of yeaſt.

With this yeaſt, when it appears to be in the above deſcribed ſtate, and before it has acquired a thoroughly vinous ſmell, mix the quantity of flour you intend to make into bread, in the proportion of ſix pounds of flour to a quart of yeaſt, and a ſufficient quantity of warm water. Knead them well together in a proper veſſel, and covering it with a cloth, let the dough ſtand for 12 hours, or till it appears to be ſufficiently fermented, in a degree of warmth equal to that above mentioned. It is then to be formed into loaves and baked.

Mr Henry next gives directions for preparing artificial pyrmont water, Seltzer water, and Mr Bewley's julep, in large quantities; but theſe proceſſes cannot be rightly underſtood but by references to the different figures, inſerted by our Author, of the ſeveral utenſils neceſſary in carrying them into execution.

The

The publication is at laſt concluded by a poſtſcript, anſwering ſome objections which Dr Lind of Haſlar hoſpital ſuppoſes may be made to ſome parts of the different proceſſes here recommended.

The only material objection ſtated by Dr Lind, is, that the agitation of the ſhip may, in ſome inſtances, obſtruct the proceſs recommended for the purification of the water; but a method here pointed out, for ſuſpending the different veſſels uſed in that proceſs, appears to be fully ſufficient for preventing every inconvenience of that nature.

SECT.

## SECT. II.

### *Medical Obſervations.*

### I.

*The Hiſtory of a caſe, in which Worms in the Noſe, productive of alarming Symptoms, were ſucceſsfully removed by the Uſe of Tobacco. By* Mr Thomas Kilgour, *Surgeon in Jamaica.*

A Gentleman of Montego-bay in Jamaica, aged twenty-ſix, of a middle ſtature, and robuſt make, about the middle of July 1777, complained for three days, of a ſlight obtuſe pain in his right upper jaw-bone, root of the noſe, eye, and forehead of the ſame ſide. On

On the evening of the fourth day, the pain became exceedingly violent, extending through the third dens molaris, and affecting the right side of the face and head with severe and incessant shootings. He applied next morning to an assistant of Mr Thomas Brown, an expert surgeon in this place, to extract the tooth in which he felt the greatest uneasiness, imagining his complaints originated from it. The tooth was perfectly sound, and its extraction was attended with no alleviation of the pain. At night he took an opiate, but it afforded no relief.

I was desired to visit him next day. He then felt inexpressible agony and distress. The eye and right side of the face were much inflamed, but little swelled. From the right nostril there distilled, in large drops, a thin dark coloured ichor, of a very offensive smell, similar to the discharge from a carious bone, but more disagreeable. I examined the nostril, but could perceive no ulceration. I therefore concluded it must be a collection of some acrid matter in the maxillary cavity, that occasioned these violent symptoms, and that the discharge from the nose was the matter finding its passage through that way.

The

The caſe being alarming, and the fever conſiderable, we called for the aſſiſtance of Dr Murray, who readily agreeing to our opinion of a collection of matter being formed in the maxillary cavity, a perforation was made into it thro' the ſocket from which the tooth was extracted; but no diſcharge of matter followed the perforation, nor did the pain in the leaſt abate. On the contrary, it continued to increaſe more and more at the root of the noſe; and, about an hour after the operation, there were voided from the right noſtril two inſects, in appearance like the maggots formed in putrid meat. On placing the patient in the light, a vaſt number were perceived in motion at the upper part of the noſtril. I introduced a forceps, and took out three or four at a time; and, in the courſe of that day, upwards of thirty. They were in general three-fourths of an inch long, and one-eighth thick, compoſed of rings, ſuddenly tapering towards the tail, and had a large browniſh head. In extracting, they made a ſtrong reſiſtance with what ſerved them inſtead of feet, and gave a ſenſation to my hand like a file drawn acroſs a ſoft body. When taken out, they were very lively, and crawled

crawled about in the open air a long time before they died.

It was ſuppoſed theſe inſects were hatched in an ulcer of the noſe, from a venereal cauſe, the patient being affected with a ſimple gonorrhœa about a twelvemonth before, which was cured in the common way, and without any return of ſymptoms. This being the idea formed of the diſorder, after premiſing the neceſſary evacuations to moderate the febrile ſymptoms, a mercurial courſe was entered upon, both with a view of correcting the general ſtate of the habit, and likewiſe from its known qualities, in being offenſive to worms, to deſtroy the inſects. Three grains of black precipitate were ordered to be given at bed-time, along with an opiate; the noſtril to be frequently fumigated with cinnabar, and a ſolution of calomel and camphor, in oil, to be thrown up by injection.

Having a particular regard for the patient, I ſtaid ſeveral hours with him, and was much diſappointed in finding neither the fumigation nor injection to have the ſmalleſt effect in mitigating the pain, or deſtroying the inſects. I therefore ſet about ſome experiments to find out a remedy capable of killing them, and happily, in a little time,

time, diſcovered one that proved ſucceſsful; but previous to this attempt, that the mercurial ſolution might have the fulleſt juſtice done it, I put a few of the inſects into it, and found them at the end of an hour as lively as ever; a clear proof they were not of a ſpecies to be affected by oils or mercury.

The trials I made upon them were as follow:

I took five wine-glaſſes; into each glaſs I put two of the maggots; into one glaſs, I poured a ſtrong decoction of chamomile and wormwood; into another, vinous tincture of opium; into the third, rum; into the fourth, I blew tobacco-ſmoke; and into the laſt, I poured a decoction of tobacco.

The bitter decoction gave them no diſturbance. The tincture of opium, at its firſt application, threw them into violent motion; but in a ſhort time they recovered and moved about at their eaſe. The rum killed them in about ten minutes. The tobacco-ſmoke, in a few blowings, ſhrivelled them to death; and the tobacco decoction inſtantly convulſed and deſtroyed them.

Next day, by conſent of Dr Murray and Mr Brown, the tobacco decoction was injected into the noſtril, and the fumigation and mercurial in-

jection

jection laid aside. The black precipitate and opiate were ordered to be continued at bed-time; and, with a view to obviate putrefaction, and support the strength, two ounces of infusion of the bark were administered every hour through the day, and the patient indulged in a little wine, and such light nourishment as he could take. At first the tobacco decoction gave a good deal of pain; but in a little time became pleasant and agreeable, sensibly correcting the fœtor, and bringing away the insects in great numbers, and in a very weakly state. After using it a few days, seldom more than half-a-dozen a-day were voided, and these frequently dead. At length, after a course of ten days, numbers being extracted by the forceps, and falling out of themselves, sometimes dead, sometimes alive, a white transparent substance, near two inches long, and a quarter of an inch broad, and flat, with three large insects in it, was brought out by the forceps, upon which the pain greatly abated, and from that time the insects disappeared. In a few days more the abrasions of the membrana Schneideriana were healed up, and before the middle of August, the patient was able to go to the mountains to recover his flesh.

The

The above mentioned ſubſtance, I preſume, had ſerved as a nidus for theſe inſects. On the ſurface of it were a great many inequalities and furrows. It is to be obſerved, that this young man had been ſubject to an hæmorrhage from the noſe, from the time he arrived at puberty, till he ſettled in this iſland, about five years ago, ſince which time he has had no attack of it. He loſt the ſenſe of ſmelling by the right noſtril after the hæmorrhage appeared, and has it only in an imperfect degree by the left; nor has it returned ſince he recovered from this diſorder. Might not this membraneous ſubſtance have been formed of the coagulable part of the blood adhering about the oſſa ſpongioſa after the hæmorrhage, the red particles of what remained ſtagnated in the noſtril being reabſorbed; and might not this foreign body, by its ſtimulus, have brought on an ulceration of the memb. Schneid. whence theſe inſects have been generated? One circumſtance in the above caſe is very aſtoniſhing, *viz.* the rapid generation of theſe inſects; as I am confident I ſpeak within bounds, when I aſſert, upwards of 200 were extracted and voided in the ſpace of 10 days.

It is surprising, that among all those authors who have written on the diseases of warm climates, there is no mention of maggots in the nose as a disease that sometimes occurs; and yet I imagine it is a complaint that has pretty often come within the knowledge of practitioners; for, since the above case, I have been informed of several instances that have happened in this island. The most remarkable is one that occurred some years ago, to a married woman of this place. Her husband, after every thing had been tried in vain by the Faculty, one day when she was in the greatest agony, poured a quantity of oil of turpentine into the nose; and this seeming to abate the pain, he continued to apply it for several days successively. The event was, the insects were killed, and the nose restored to the state of a simple ulcer, which soon healed up. But previous to the use of the turpentine, the unfortunate woman had lost the ossa nasi, and with this deformity she escaped.

Another case was that of a young man, a few miles from this, which happened in 1776; but to him it proved fatal.

Mr Robert Monro of Hanover-parish, a very old practitioner, and a man of great experience and

and medical ſagacity, informed me of a caſe of maggots in the noſe he had met with, in which, after every thing that was tried had failed, he thought of uſing the tobacco, from knowing its powerful effects in killing moſt kinds of vermin. The conſequence was, the inſects were ſpeedily deſtroyed, and the patient in a little time reſtored to health. And this fact of Mr Monro's, who was alſo called upon to viſit our patient, was what induced us to perſevere in the uſe of the tobacco, which happily proved ſo efficacious.

## II.

*Account of a New Method of Treating Dropſy. By* Mr John Ring, *Surgeon, New Street, Hanover-Square, London; communicated in a Letter to* Dr Duncan.

IN compliance with your requeſt to practitioners in general, to tranſmit to you any improvements made, or ſuppoſed to be made, in the art of healing, I have ſubjoined three caſes, to recommend what I believe to be a more ſucceſsful method of treating the dropſy, than thoſe

ufually purfued. Every inftance in which I have yet tried it, has confirmed me in that opinion; but as the following were the moft alarming cafes, I thought it would be intruding too much on the limits of your publication to trouble you with more. If, from thefe hints, the leaft advantage fhould accrue to any afflicted with that diforder, my intention will be fully anfwered.

Cafe 1ft. W. R. Efq; was feized, in February 1778, with an anafarca, which increafed fo faft, that I apprehended confiderable danger, as he was 84 years of age. It was occafioned by a fit of the gout, which had relaxed him extremely, and I feared would render him unable to fupport the neceffary evacuations. Having, in many cafes, feen the uncertainty of diuretics, I gave him a purging draught, which reduced the fwelling; and, on account of his weaknefs, did not repeat it till the third day, by which time his legs, &c. were fwelled to their former fize. Finding no ground was gained, I interpofed a draught, confifting of tinct. amara, acet. fcillit. &c. to be taken twice a-day on the days free from purging. The acet. fcillit. kept up a diarrhœa, and excited naufea

naufea, on which account I fubftituted in its ftead the following draught:

℞. Decoct. cort. Peruv. fort. unc. ʃʃ.
T. cort. Per. Hux. dr. iii.
Ol. Juniper. gut. iv. M. ft. hauftus, meridie et nocte fumendus.

From the time of taking this medicine, his appetite was immediately reftored; the waters no longer increafed on the intermediate days, and by the occafional repetition of the purge, were in a fhort time entirely removed. As the draught rather occafioned coftivenefs, a few grains of rhubarb were fometimes joined with it; and after the waters were evacuated, the draught, omitting the ol. Juniperi, was continued for fome time. He has remained in perfect health ever fince, except now and then a languor, for which he has recourfe to the fame medicine, and never without effect. It may not be improper to obferve, that frictions of the legs were recommended in this and the fecond cafe; and in the laft, of the abdomen; together with abftinence from liquids, as much as convenient in them all.

Cafe 2d. Mrs F. aged 44, having been expofed to the rain at the time of her menfes, they fuddenly ftopped. Her abdomen immediately

began to ſwell; and, in the ſpace of a week, when I firſt was ſent for, (Sept. 6. 1778,) an anaſarca had diffuſed itſelf through the whole ſyſtem, to a great degree for ſo ſhort a time. Her body was increaſed above ſix inches in circumference, and her legs to twice their natural ſize. I directed for her a draught with El. e Scammon. by which the waters were much diminiſhed; but in two days, at which time it was repeated, they were collected again to their uſual quantity. The ſecond draught did not agree ſo well as the firſt; it produced more pain, and leſs diſcharge; nevertheleſs her ſtrength was much exhauſted, as her ſtomach was too weak to bear any animal food but broth. The third draught was intended to be given at three days diſtance; but before that time, ſhe was ſeized with ſo violent a pain of the bowels, that an anodyne was neceſſary, which removed it. After waiting a few days, for fear of too great irritation, I changed the draſtic purge for one of a lenitive kind, as inf. Senæ, *&c.*

After taking five cathartics, no advantage could be perceived, as the waters, after the evacuation, ſoon increaſed again, ſo that we almoſt deſpaired of ſucceſs. I did not think myſelf warranted

warranted, by the former cafe, to give the bark in this, on account of the great quantity of waters, till I had tried diuretics, with the ufual corroborants, as inf. amarum, fal tartari, ol. juniperi, *&c.*; but after giving them for ten days between the days of purging, and finding no other effect but that of raifing a fever, I ordered a faline mixture, which prefently removed it, and afterwards the bark, *&c.* as in the former cafe. The event anfwered my wifhes; her appetite grew ftrong; the waters no longer increafed; and, by the affiftance of a purge now and then, which fhe bore well, her diforder was foon removed, and has never returned fince.

Cafe 3d. Mrs N. who had feveral children, fent for me when fhe thought herfelf in the fixth month of her pregnancy, and defired my advice concerning bleeding; as, although fhe believed herfelf to be with child, the menfes regularly appeared in a fmall quantity. I did not find the leaft occafion for bleeding; her pulfe being low, and every thing indicating great relaxation; and I expreffed fome doubt of her pregnancy; but fhe herfelf feemed pofitive of its reality, from her regularly increafing in fize; and was more confirmed in it as it advanced, by

thinking that ſhe frequently felt the child move. Her labour not happening when the uſual term of geſtation was elapſed, I propoſed an examination, to aſcertain her true ſtate; and was confirmed in my conjectures, that the tumour was an hydrops ovarii.

I directed for her, (Oct. 29. 1778,) a purging draught, and two days after repeated it; then gave her a mixture of inf. amarum, ſal tartari, and ol. juniperi; as I wiſhed to prove, by a ſufficient number of caſes, whether my want of ſucceſs before with that medicine was owing to its inefficacy, or to any peculiarities in thoſe habits where it had been made uſe of. She complained that it occaſioned great heat in her ſtomach, and no good conſequence whatever enſued, to recommend its continuance. As ſhe was much weakened by the former evacuations, the cathartic was not repeated till the fourth day; and immediately after, I directed a mixture of the ſtrong decoction of bark, Huxham's tincture, and oil of juniper; three large ſpoonfuls to be taken noon and night, on the intermediate days. The cathartics were repeated every four or five days; and, to remove coſtiveneſs, two pills at night occaſionally, of equal

parts

parts of pil. cocciæ, and pil. rufi. Before the end of December, the tumour was perfectly removed, and her ſtrength almoſt eſtabliſhed. From the time ſhe began the bark, ſhe ſupported the evacuations with eaſe, and the tumour never increaſed; but did not ſubſide very perceptibly, unleſs from the cathartics. The pills were continued for ſome time, to remedy coſtiveneſs, which went off as her ſtrength was, by exerciſe, more reſtored. Her complaint has not ſince returned, and ſhe is now advanced near ſeven months in pregnancy.

The inferences I would draw from theſe obſervations, are, 1*ſt*, That in dropſies, where no particular ſymptoms, as inflammation of the viſcera, &c. forbids it, we ought early to interpoſe bracing medicines, between the uſe of cathartics: And, 2*dly*, That with this intention, no medicine is equal to the Peruvian bark.

## III.

*An Obſervation on opening the Abdomen and Thorax of a Young Lady, who died after a very ſhort illneſs; communicated to* Dr Duncan, *by* Mr Richard Paxton, *Surgeon at Maldon in Eſſex.*

A Lady, in the 23d year of her age, of a delicate frame of body and weakly conſtitution, had, for two years paſt, complained of a ſlight pain on the right ſide of the thorax, attended with ſome reſtriction in breathing and a tickling cough; which ſymptoms rendered her extremely averſe to any kind of exerciſe. About the latter end of Auguſt 1780, ſhe was ſeized with the ſymptoms of an autumnal remittent, then prevailing in the neighbourhood, which readily yielded to the uſual treatment in theſe caſes.

The firſt ſymptoms, however, ſtill attended her; the pain in the ſide, and reſtriction in breathing, rather increaſing till the 15th of December; on the noon of which day, I was again called, and found her laid on bed with the following complaints: Debilitated quick pulſe, chillneſs even to ſhivering, together with acute pain on

on the right ſide, or, as ſhe expreſſed, below the ſhoulder, and bilious vomiting. They told me, that as ſhe was ſitting at her needle-work in her chamber, to which ſhe had retired after breakfaſt, ſhe felt, and even heard, ſomething give a violent ſnap within her breaſt, in that part where now ſhe deſcribed the pain to be. Her mother going into the room ſoon after, ſhe exclaimed to her, ſhe ſhould die. I begged ſhe might be undreſſed, and go to bed; which was done, and I ſent her over a ſaline julep, meaning to viſit her again in two or three hours; but ere that time was elapſed, her father came for me, and I found her ſtomach rejecting every thing ſhe ſwallowed, and every ſymptom exaſperated. I confeſſed myſelf totally at a loſs for the cauſe of the appearances; but being fully ſatisfied of her imminent danger, entreated a phyſician might be ſent for, which was inſtantly agreed upon; and Dr Steele from Witham, ſaw her about ſeven o'clock in the evening. By his direction ſhe was bled to the amount of 12 ounces; a bliſter was applied to the ſide, *&c.*

The ſymptoms then were, in the Doctor's own words, "Difficult reſpiration, acute pain in "the right ſide, juſt below the breaſt, pulſe fre- "quent

"quent and oppreſſed, increaſed heat, frequent "bilious retchings, countenance uncommonly "anxious: What was very remarkable, the pulſe "not at all freer from the liberal veneſection, "though the reſpiration was a little relieved. "My idea of the caſe at the time was its being "a formal pleuritic attack." She paſſed a painful night without the mitigation of any one ſymptom. On the morning of next day, the Doctor found her pulſe "ſcarcely perceptible, and uncommonly quick, continual rigors and vomitings, cold clammy ſweat, *&c.* complained of "intolerable ſickneſs, and pain only near the "pit of the ſtomach, with a ſenſe of load and "oppreſſion there." She died at two o'clock that day, or about 28 hours from the time of the ſeizure.

Next day, having obtained leave to open the body, it was performed the ſame evening in preſence of, and with the aſſiſtance of three other ſurgeons.

The abdomen being much diſtended, apparently by ſome fluid, a perforation was made into it with a trocar, in the uſual place of tapping for an aſcites; by which, however, nothing but air was let out.

The

The abdomen was then opened in the ufual manner, when the ftomach and inteftines appeared greatly diftended; which diftenfion ceafed, upon letting out the air contained in them. The ftomach, liver, gall-bladder, and inteftines, in every other refpect exhibited a moft healthy appearance; and no obftruction whatever was found in the gall-ducts, or any extravafation in the cavity of the abdomen.

The thorax was then opened, the right cavity of which was found to contain more than three pints of reddifh water, with two cyfts detached and floating therein; one of the cyfts ruptured but not quite emptied of its fluid. The right lobe of the lungs was much compreffed, fo as to occupy but a trifling part of the cavity. The left lobe, the heart, and all other parts which we examined, were in a perfectly found ftate, and what is very remarkable, not the leaft adhefion was found in either cavity.

As Dr Steele had expreffed an earneft wifh for the diffection, I tranfmitted the account to him by the earlieft opportunity, and fome time after received the following:

"Dear Sir, I am much obliged to you for "communicating fo immediately the particulars "of

" of the diffection, which, though it throws fome
" light on the immediate caufe of our patient's
" death, little enables us to fay what might have
" been done to prevent it. One means only
" fuggefts itfelf to me, and that, from the fhort
" period between the attack and clofe of the
" fcene, a doubtful one. The effufion into the
" right cavity of the thorax afcertained, Would
" an opening between the ribs, into a depending
" part of that cavity, have mitigated the fymp-
" toms, or faved life?"

SECT.

## SECT. II.

### *Medical News.*

THE new operation of *cutting the ſymphyſis of the pubes*, having greatly divided the opinions of medical profeſſors in different parts of Europe, we preſume the following abſtract from the ſecond volume of Dr Leake's laſt edition of Practical Obſervations on the Acute Diſeaſes of Women, cannot fail of being acceptable to many of our readers; eſpecially as the ſubject is intereſting, and the Author ſeems to have entered candidly and minutely into a diſcuſſion of the principal circumſtances for and againſt that operation. Dr Leake introduces this ſubject in the following manner:

THE ſection of the pubes, firſt propoſed by M. Sigault in his Theſis at Angiers, and afterwards by

by him ſucceſsfully performed on the living body at Paris, Sept. 2. 1777, having lately much engaged the attention of Medical Gentlemen, I ſhall beg leave to offer ſome general animadverſions on that new and extraordinary operation; particularly as M. Le Roy, Profeſſor of Midwifery, and Doctor-regent of the Faculty of Phyſic at Paris, who aſſiſted him in the performance of it, was pleaſed to honour me with a letter and his Treatiſe on that ſubject; and as M. Poignand the tranſlator has thought fit to addreſs it to me.

M. Sigault deſcribes the ſection of the pubes, and propoſes it as a ſubſtitute for the Cæſarian operation; the propriety of which, as well as the objections brought againſt it, I am deſirous to examine with attention and candour; for little advantage can ariſe from opinions, where men rather contend for ſuperiority than truth. The ſpirit of enquiry is only commendable when it is exerted for the improvement of ſcience, and ſolely directed for the public good. But although I am inclined to think favourably of this operation, for reaſons hereafter aſſigned, I know that nothing but time and future experience can ſufficiently determine whether it ought to be rejected or adopted.

The

The ſtructure of the parts on which this operation is to be performed, being perfectly known to every medical reader, their deſcription, as well as that of the operation itſelf, would be unneceſſary, eſpecially as the laſt is circumſtantially ſet down in M. Le Roy's tract, entitled, Practical Enquiries on the Section of the Pubes, to which I muſt refer him.

The following are the objections to this new operation. 1*ſt*, That the cartilage at the ſymphyſis of the pubes, may happen to be oſſified, which would prevent its diviſion by the knife. 2*dly*, That the neck of the bladder may be wounded. 3*dly*, That the ſpace gained by the ſection of the pubes, may not, in a narrow pelvis, be ſufficient to allow the child's head to deſcend through the cavity. 4*thly*, That the union of the cartilage may not be affected. And *laſtly*, That the internal poſterior ligaments, uniting the ſacrum and ilia, may be torn aſunder, by dividing the bones of the pubes.

In anſwer to the preceding objections, 1*ſt*, It may be remarked, that cartilage being a ſubſtance eſſentially diſtinct from bone, is never found oſſified except in a preternatural ſtate, or in old age, after the time of child-bearing is paſt, and

 where

where there could be no occasion for the operation.

2*dly*, The neck of the bladder being only slightly attached to the symphysis of the pubes, by cellular membrane, and not in close union with the cartilage, there never can be the least danger of wounding it, unless the operator is unskilful and ignorant of the structure and situation of the parts.

3*dly*, The space only of one inch gained by M. Sigault from the section of the pubes, on the dead body, does not appear sufficient to enlarge the bony passage for the exit of a child's head, in a pelvis uncommonly narrow; but in the case of Mrs Brasier, M. Le Roy found a separation of two inches and a half. And as the case at the Westminster Lying-in Hospital affords incontestable proof, that, after the section of the cartilage, the bones of the pubes, without violence, receded from each other full two inches and an eighth, I have no doubt but so much additional space would in general be sufficient to let the child's head pass, even in a pelvis so preternaturally narrow, that no other means but the Cæsarian operation could be devised for its birth.

Of

Of all the caufes of difficult labour, the moft frequent and invincible objection to child-birth is that of a narrow or diftorted pelvis; to remedy which, the fection of the pubes feems more peculiarly adapted; but here we are told by fome, that although the long axis of the pelvis may from thence be extended from fide to fide, its fhorteft diameter from facrum to pubes, where additional fpace is moft wanted, will not be increafed in the fame proportion, and therefore the operation cannot avail. This, indeed, at firft fight, looks like a fpecious objection, which, if not thoroughly examined, might much depreciate the merit and advantages of the new operation. I fhall, therefore, beg the reader's attention to the following circumftances, which, if clearly underftood, I prefume will difprove and totally fet afide what has fo plaufibly been alleged againft it. By the fection of the pubes, it is now generally allowed, even by its opponents, that the fpace gained by the aperture between the divided bones, is nearly two inches and a half, even in the dead body, where the parts are cold and rigid, and confequently lefs yielding than in a living ftate. It will therefore follow, that as much of the occiput or hind head as is protruded

ded into an aperture at the pubes, of two inches and a half, ſo much preciſely will be the ſpace gained by this operation, and ſuperadded to the ſhort axis of the pelvis, from ſacrum to pubes; and ſince the child's hind head, preſenting at the ſymphyſis, is much ſmaller in diameter than the head itſelf, ſo much greater will be its projection into the aperture; and therefore, the ſpace gained from ſacrum to pubes, will be equal to the enlargement of the pelvis from ſide to ſide; which is the circumſtance here contended for, and what we preſume is fully proved, contrary to the aſſertion of thoſe who have oppoſed the new operation.

*4thly*, From the obſervations and unqueſtionable authority of Petit and De La Faye, we are aſſured, that cartilages will as firmly unite after diviſion, as bones after a fracture. But, to put this matter out of all doubt, Camper, a Dutch phyſician, made experiments upon a quadruped, by cutting through the cartilage of the pubes, and, after diſſecting the parts, he found, they were firmly united.

*Laſtly*, Reſpecting the pretended laceration of the internal poſterior ligaments of the pelvis, uniting the ſacrum to the ilia, I muſt refer to the caſe

case at the Westminster hospital, already recited, where the section of the pubes was made in the presence of 16 medical Gentlemen, and where, notwithstanding the space gained was two inches and an eighth, no laceration, or the least marks of violence, appeared; but, on the contrary, these ligaments were found perfectly firm, and in their natural state. If so much space could be obtained without laceration in the dead body, where the fibres were cold and rigid, and their cohesion considerably weakened by natural tendency to dissolution; how much greater space might reasonably have been expected in the living subject, where the solids are more soft and yielding?

Let us now take a comparative view of the Cæsarian operation, for the success of which Roussetus contends with so much zeal, whilst Marchant condemns it as highly dangerous, and informs us, that Pare, Guillemeau, Viard, and others of the first rank in their profession, found this operation extremely unsuccessful.

In the 4th volume of the London Medical Observations, may be found a case of Cæsarian operation accurately related, and the only instance that I know of, where it was performed upon the

the living body, in this great city, for upwards of a century paſt. From this caſe, as one which may be depended upon, I have tranſcribed the following particulars, being the leading circumſtances, and moſt material practical facts relative to the nature and event of that operation.

The Cæſarian operation was performed on Martha Rhodes, Oct. 21. 1769, by Mr Thomſon, ſurgeon to the London Hoſpital, who informs us, that the patient did not loſe more than four ounces of blood, though ſhe died about five hours after. The body being opened, grumous blood, which was computed to weigh about 20 ounces, was found on the ſurface of the omentum and uterus. The cavity of the womb alſo contained blood; ſo that the whole quantity of this vital fluid, loſt by the operation, was allowed to be 30 ounces. Mr Thomſon ſays, it is well known, that in natural labours the diſcharge of blood will often much exceed that quantity; and therefore ſeems at a loſs to form a judgment what might have been the immediate cauſe of this patient's ſudden death.

From this laſt opinion I muſt beg leave to differ; but even admitting the quantity of blood diſcharged in a natural labour to be conſiderable,

as it ſometimes is, the danger ſhould not be eſtimated ſimply by its quantity, but by the ſhort ſpace of time in which it is diſcharged, as well as the nature of the blood itſelf, and the ſource from which it is derived.

After delivery, the blood is very ſlowly evacuated from the innumerable ſmall veſſels proceeding from the womb, and entering the cellular ſubſtance of the placenta, for the immediate ſervice of the child; reſpecting the mother, this blood may therefore be looked upon as redundant, and not eſſential to the ſupport of her own body. On the contrary, in the Cæſarian ſection, where the large dilated arteries and veins of the womb are divided, and 30 ounces of vital blood, or that merely maternal, ſuddenly guſhes forth in a full ſtream, I am inclined to think that ſo powerful a check to the circulation, may ſuſpend the heart's motion, and prove the immediate cauſe of the patient's death, by producing a mortal ſyncope; particularly when we conſider, that the hypogaſtric arteries entering the uterus, proceed from large branches of the aorta, through which the blood circulates with extreme velocity.

But could we suppose the patient might escape a mortal hæmorrhage after this operation, would not the large quantity of grumous blood extravasated in the cavity of the belly, from which it could not be evacuated, corrupt and destroy the contiguous vital parts, and prove the remote cause of her death?

The section of the pubes, which allows the child to be born by the natural passage, carries not with it those ideas of cruelty which attend the Cæsarian operation, where the patient is, as it were, embowelled alive. No formidable apparatus is necessary; the section being made with expedition, and without pain or danger, no blood-vessel, nerve, or other parts essential to life, are wounded; these divided, being only skin, cellular membrane and insensible cartilage, from which neither hæmorrhage, or symptomatic fever, are to be apprehended.

These are my reasons for preferring the new operation, by which the mother and child may probably both be saved; but where the mother at least, to whose safety our principal attention should be directed, would generally be lost by the Cæsarian section.

To

To thoſe who vaguely give it as their opinion, that this operation will not ſucceed, the anſwer is ſhort; it has already ſucceeded, and therefore it may again ſucceed, particularly with ſuch as are diſpoſed to give it a fair and judicious trial.

M. Le Roy gives ſeveral examples of its ſucceſs. M. Deſpree, ſurgeon in Brittany, performed the ſection of the pubes with happy event in 1778: And Monſ. de Lambon, firſt ſurgeon to the Ducheſs of Loraine, in a letter to Monſ. de Brambilla, lately publiſhed at Mons, informs him, that he had performed the ſection of the pubes on two patients with ſucceſs; one of which ſubmitted to the operation twice, and is now in perfect health, as well as her child, of which ſhe was happily delivered by the ſecond operation.

My ingenious friend, Dr Hauſman of Brunſwick, who did me the honour to number himſelf among my pupils, alſo obliged me with a manuſcript account of this operation ſucceſsfully performed by Profeſſor Siebold.

To conclude: Reſpecting the caſe of Mrs Souchot, upon whom the ſection of the pubes was firſt performed by M. Sigault, ſuch was the event, that both the mother and child were preſerved. The circumſtances appeared ſo extraordinary,

dinary, that Commiſſioners were appointed by the Medical Faculty of Paris, to examine into the ſtate of the caſe, and ſucceſs attending it; in conſequence of which, the honour of prize medals was conferred on M. Sigault, as well as M. Le Roy, who aſſiſted him in the operation."

To this Work of Dr Leake, which is dedicated to the Queen, and which has been tranſlated into the French and German languages, is now prefixed a portrait of the Author. It contains alſo additional obſervations on the uſe of camphor in child-bed fevers, and an account of a new and ſucceſsful method of treating uterine hæmorrhages. Of theſe we propoſe to give ſome account in a future number.

To theſe obſervations on the ſection of the ſymphyſis pubis, we may alſo add, that it has of late been ſucceſsfully performed in Spain, by Signor Canivell, Surgeon Major to the naval hoſpital at Cadiz.

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The following account of the ſucceſsful treatment of the Hydrocephalus Internus, by means of the Vapour Bath, is extracted from a letter written

written by Dr A. Hunter, Phyſician at York, to Dr Will. Hunter, Phyſician to the Queen.

"A child, in the third year of its age, was afflicted with the hydrocephalus internus in a moſt alarming degree; and as various remedies had been unſucceſsfully uſed, a trial of the Vapour Bath was at laſt recommended, not from any juſt reaſoning upon the caſe, but rather from a deſire to cultivate a forlorn hope. Not being at that time much acquainted with the nature of the Vapour Bath, I gave it as my opinion, that the operation would prove fatal to the child, imagining, that the ſudden rarefaction of the fluids would increaſe the preſſure upon the brain, already diſeaſed by accumulated weight. But when I found that the friends of the child had determined upon the trial, I ſubmitted my judgment to their reſolution; and the child was accordingly placed in the fumigating chair, with anxious fears on my part. The firſt operation was continued for the ſpace of ſeven minutes; and, as the child bore it well, and ſeemed rather better on the ſucceeding day, I felt myſelf encouraged in the proſecution of the fumigation. I accordingly recommended it to be continued every other day; and, at the expiration of 20 days,

days, I ſpeak it with aſtoniſhment! every ſymptom was diminiſhed. The child could then view objects with pleaſurable attention; could articulate a few words, and, with a little aſſiſtance, could walk acroſs the room; whereas, before the fumigation, it had loſt its ſpeech, its eyes wandered without deſign, its apprehenſion was almoſt annihilated, and its limbs were unable to ſupport the weight of its body. The cure being performed in the ſpring, I recommended ſea-bathing during the ſummer months, which fully anſwered the purpoſe of giving additional ſtrength. And here it will be neceſſary to obſerve, that ſeven grains of Peruvian bark, given twice a-day, was the only medicine preſcribed during the courſe of fumigation; and that was exhibited with a view to increaſe the abſorption of the extravaſated fluid.

The Vapour Bath, when highly impregnated with ſtimulating aromatics, occaſions a ſudden redneſs of the ſkin; a temporary fever is brought on, and a copious perſpiration is produced, which uſually terminates as ſoon as the patient is dreſſed. From theſe appearances, we may rationally account for the abſorption of water preternaturally collected in the ventricles of the brain.

This

This being a ſolitary caſe, we muſt not give our hopes too much indulgence: Let it therefore only be conſidered as fair ground for future experiment. I could ſay a great deal in favour of the Vapour Bath, in the cure of a variety of diſeaſes, having, ſince the above caſe, had a conſiderable degree of experience in that mode of practice: But, as I wiſh to confine this letter to the ſucceſsful treatment of the hydrocephalus internus, I ſhall leave the ſubject for the preſent, and content myſelf with the general recommendation of a practice that ſeems to deſerve our ſerious attention."

* * * *

Some Gentlemen, at Stockholm in Sweden, have lately begun to publiſh a Medical Journal, to which they have given the name of *Weckoſkrift for Lakare och Naturforſkare*, i. e. Weekly Papers for Phyſicians and Naturaliſts. The Editors have propoſed to confine themſelves as much as poſſible to Swediſh Medical and Philoſophical diſcoveries; yet, as theſe will probably not afford ſufficient materials for a weekly number, they propoſe alſo to pay attention to the moſt intereſting foreign publications.

A ſimilar Work is likewiſe publiſhed at Gottenburg in Sweden, and one number comes out every month, under the title of *Samling af Kon och Uptackter*, i. e. A Collection of Experiments and Diſcoveries. The Editors of this Work have adopted a very extenſive plan; comprehending not only Phyſic, Surgery, Chemiſtry and Natural Hiſtory, but alſo Oeconomy, Agriculture, Trade, Manufactures, *&c.* together with Biographical Accounts of eminent Literary Men. We are informed in the preface, that although the Editors propoſe chiefly to publiſh thoſe new diſcoveries that are made in foreign countries in the practical ſciences, yet they cannot but likewiſe leave room for their native literary productions. They have alſo made it a ſacred rule, never to let any indecent criticiſm or perſonality enter their publications.

From theſe two ſources we hope, from time to time, to be enabled to communicate to our readers, important diſcoveries in various branches of Medical Literature, particularly in Chemiſtry, which has of late been cultivated in Sweden with no leſs aſſiduity than ſucceſs.

On

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On the 29th of November 1780, died at Leyden, in the 76th year of his age, Hieronymus David Gaubius, first Physician to the Stadtholder, and Member of many of the most eminent learned Societies in Europe. Dr Gaubius studied under the illustrious Boerhaave; and, from distinguishing marks of genius and industry became so much the favourite of his Professor, that Dr Boerhaave resigned the Chemical Chair in his behalf, from the conviction that no one was better fitted to support the credit of the University. Dr Gaubius taught at Leyden, with deserved applause, for the space of 40 years. But, in the year 1775, he retired from the laborious duties of an office to which his advanced age was but ill suited, to make way for the present eminent Professor, John David Hahn, then Professor at Utrecht. The high reputation which he acquired in his own country, as a skilful practitioner, and an instructive teacher, was extended over all Europe by several valuable publications; particularly by his Institutiones Pathologiæ Medicinalis, and his Adversaria, which have contributed not a little to the improvement both of the Theory and Practice of Medicine.

On

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On the 6th of December 1780, Joſeph Lieutaud, Counſellor of State, and firſt Phyſician at the Court of France, died at Verſailles, in the 78th year of his age. Mr Lieutaud was born at Aix in Provence, and reſided principally there, till he took the degree of Doctor of Medicine. After this he proſecuted his ſtudies for ſome years at Montpelier. He returned to Aix, where he ſoon acquired extenſive practice, and became eminent for literary abilities. There he reſided till the year 1750, when he was invited to act as Phyſician to the Royal Infirmary at Verſailles. There he practiſed with ſuch reputation and ſucceſs, that he ſoon arrived at the head of his profeſſion; and, in the year 1774, upon the death of Mr Senac, he was appointed Archiater. His extenſive engagements in practice did not prevent him from cultivating the Science of Medicine in all its branches, and from freely communicating to others the reſult of his own ſtudies. He publiſhed, during his lifetime, many valuable works. Among theſe we may mention the following, which have eſtabliſhed his reputation while alive, and which will tranſmit his fame to lateſt poſterity.

I.

1. Elementa Phyſiologiæ.
2. Precis de la Medecine Pratique.
3. Precis de la Matiere Medicale.
4. Eſſais Anatomique.
5. Synopſis Univerſæ Praxeos Medicæ.
6. Hiſtoria Anatomico-Medica.

* * * *

While we thus mention the death of two eminent Phyſicians, the fruits of whoſe labours the world have had a full opportunity of enjoying; we cannot, without regret, take notice of the loſs of an ingenious young Anatomiſt, Mr Andrew Blackall, who lately died at Briſtol hot-wells, in the 27th year of his age. To more than ordinary natural abilities, Mr Blackall ſuperadded ſingular induſtry. After proſecuting the ſtudy of his profeſſion at London, Edinburgh and Paris, he ſettled in Dublin, his native city. There his attention and abilities procured for him the friendſhip and patronage of Drs Cleghorn, M'Bride, Purcell, and many others, who were happy to have an opportunity of patronizing ſingular merit. His ambition, however, prompted him to aim at higher objects than he thought could be obtained in Dublin. And, on a vacancy in an anatomical theatre in London, by the

the death of Mr Magnus Falconer, he removed to that city, where he began the office of a lecturer with the moſt flattering proſpects of ſucceſs. But a pulmonary conſumption ſoon put a period to his progreſs, and to his life.

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Dr Thomas Miek, and Dr John Lind of Plymouth, have lately been elected Fellows of the Royal College of Phyſicians of Edinburgh; and Dr William Grieve has been admitted a Licentiate.

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Mr John Rae, ſecond ſon to Mr James Rae, has lately been admitted a Member of the Royal College of Surgeons of Edinburgh.

SECT.

## SECT. III.

### *List of New Books.*

AN affectionate Tribute to the Memory of the late Dr J. Fothergill. By W. Hird, M. D. 4to. London.

A Critical Enquiry into the ancient and modern Manner of Treating the Diseases of the Urethra. By Jesse Foot, one of the Company of Surgeons in London, and privileged Practitioner from the College of St Petersburgh. 8vo. London.

A Treatise on Sympathy, in two parts. Part 1st, On Sympathy in general. Part 2d, On Febrile Sympathy. By Seguin Henry Jackson, M. D. Member of the Royal College of Physicians, London, and of the Royal Medical Society, Edinburgh, and Physician to the Westminster General Dispensary. 8vo. London.

Observations, Medical and Political, on the Small-pox and Inoculation; and on the De-

creafe of Mankind at every Age; with a comparative View of the Difeafes moft fatal to London during ninety years. By W. Black, M. D. 8vo. London.

Cafes of the Angina Trachealis, with the Mode of Cure, in a Letter to William Hunter, M. D. *&c.* By Richard Bayley, Surgeon, to which is added, a Letter from Peter Middleton, M. D. to the Author. 8vo. New York.

A Treatife on the Gonorrhœa, to which is added, a Critical Enquiry into the different Methods of adminiftering Mercury, intended as a Supplement to a former Work, entitled, a New and Eafy Method of Cure, by the introduction of Mercury into the Syftem, through the orifices of the abforbent Veffels on the infide of the Mouth. By Peter Clare, Surgeon. 8vo. London.

The Principles and Practice of Midwifery. By Edward Fofter, M. D. completed and corrected by James Sims, M. D. 8vo. London.

Chemical Effays, by R. Watfon, D. D. F. R. S. 2 vols. 8vo. London.

Philofophical Enquiries into the Laws of Animal Life. By Hugh Smith, M. D. 4to. London.

Cafes

Cafes of Infanity, the Epilepfy, Hypochondriacal Affection, Hyfteric Paffion, and Nervous Diforders, fuccefsfully treated by W. Perfect, Surgeon. 8vo. London.

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Joannes Wainman, Britannus, De Epilepſia.

# MEDICAL

# COMMENTARIES.

## SECT. I.

*An Account of New Books.*

### I.

*Les Avantages de l'Inoculation, & la meilleure Methode de l'administrer.* Ouvrage traduit de la Dissertation Latine, couronnée par l'Academie Royale des Sciences, Inscriptions & Belles-Lettres de Toulouse; & composée par M. *P. Camper*, Docteur en Medicine, Professeur d'Anatomie, de Chirurgie, & de Medicine, dans l'Université de *Groningue*; des Academies de Paris, de Londres, de Harlem, *&c.*

THIS Dissertation was written in answer to the question proposed by the Academy of Toulouse, announced in the title of the book.

Mr Camper thinks it unneceſſary to notice the comparative number of deaths that happen in the inoculated and in the natural ſmall pox. The concluſion in favour of inoculation, drawn from ſuch compariſon, is now fixed beyond a doubt. But the advantages of inoculation, in reſpect of the ſymptoms of the diſeaſe, have not yet been clearly ſhown; theſe, therefore, our Author makes the particular object of his attention.

1. A petechial fever frequently attends the ſmall pox, which is for the moſt part fatal. Our Author has ſeen, in two inſtances, a petechial fever accompanying the inoculated ſmall pox. He profeſſes his ignorance that any perſon has been able to diſcover this diſpoſition to putrid fever lurking in the habit, by certain and undeniable ſigns; but of this he is ſure, that the natural ſmall pox is frequently conjoined with petechiæ, and that they ſeldom appear in the inoculated ſmall pox.

2. A ſecond advantage pointed out by our Author, reſpects the number of ſmall pox. He finds, that in almoſt every caſe of ſmall pox, the eruption is more numerous on the face than on the reſt of the body, in proportion to the extent

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of surface; and, by an accurate observation of forty inoculated patients, he states this proportion, to be as 5 to 1 nearly, and that about one-fifth of the whole number of small pox generally appears on the face.

But as the disease is esteemed more or less dangerous, and is said to be *confluent*, or not, according to the number of pustules on the face; and as one-fifth of the greatest number of pustules that has been known to appear after inoculation, will never give a confluent small pox, our Author thinks, that the danger to be apprehended from a numerous eruption is greatly lessened, if not altogether removed, by inoculation.

Under the three following heads Mr Camper notices some of the symptoms of the disease. The swelling of the face, hands and feet, and salivation, which have been considered as salutary when occurring in the course of the small pox, our Author thinks are the consequence only of a numerous eruption, are by no means essential to the disease, and are only to be prevented by inoculation, which diminishes the number of pustules. In the same manner he accounts for the inflammation of the fauces, and the cough, on the 7th, 8th or 9th day from the eruption.

Theſe are very troubleſome ſymptoms; but as it is by inoculation alone, that the number of puſtules on the fauces and aſpera arteria can be diminiſhed, it appears that benefit and relief may be derived from this practice.

Our Author, after making ſome obſervations on the ſecondary fever, concludes, that it is poſſible that a ſecondary fever may occur in the inoculated ſmall pox; but ſuch an occurrence is very rare, perhaps does not happen in ten of a thouſand inoculated perſons, although it always appears in the natural ſmall pox. This is therefore a remarkable advantage which the artificial has over the natural diſeaſe.

Our Author, in the whole courſe of his practice, only obſerved two inſtances of an inflammation of the eye, followed by a ſpeck, after inoculation. He never ſaw an eye entirely deſtroyed in conſequence of inoculated ſmall pox.

Mr Camper ſlightly notices the painful ſuppurations, which happen under the ſkin, in the joints, and often in the cartilages, the conſumptions, aſthmas, and abortions, ſo often the conſequence of natural ſmall pox: None of theſe have ever been obſerved after inoculation.

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Another advantage not to be overlooked, is, that although a good many puſtules are produced in conſequence of inoculation, yet they never run together, and they always fall off in ſuch a manner that no remarkable pit or ſcar is left.

Farther, by means of inoculation we may eaſily aſcertain whether a perſon has already had the ſmall pox, when that is uncertain, which could not be done without endangering life, if, for the ſake of the trial, the perſon were expoſed to the infection of the natural ſmall pox.

Mr Camper, in the ſecond ſection, treats of the beſt method of inoculation. Almoſt every author recommends the preparation of the body, ſo that it may happily undergo the ſmall pox. Our Author enters upon the ſubject with a view to determine whether it be poſſible to accompliſh ſuch preparation. After enumerating the various injunctions on this head, as laid down by *Rhaſes* in the natural ſmall pox, he obſerves, that theſe rules have been implicitly followed by ſucceeding phyſicians, and equally applied to the natural and inoculated ſmall pox; for, as the diſeaſe in either caſe has the ſame courſe, the ſame doctrine, and the ſame rules are applicable. But we are not to reaſon *a priori;* for the ſmall

pox, like other peſtilential diſeaſes, affect us by contagion; but that contagion acts differently, according to the difference of conſtitution or temperament. We muſt therefore enquire what conſtitutions are more or leſs favourable for the ſmall pox? Whether, by any preparation, theſe conſtitutions can be changed and made better; at what time, and by what means? We are to examine, with the greateſt attention, the ſucceſs of inoculation, adminiſtred with or without preparation.

In conſidering the conſtitution or temperament, as depending upon the ſtate of the air, diverſity of climate, and of modes of living, our Author abſolutely rejects any influence which theſe have been ſuppoſed to have in giving a favourable or unfavourable ſmall pox. He obſerves, however, that when the *ſkin is tranſparent, and of an agreeable roſe-colour, the ſmall pox are always diſtinct*; and concludes, that there are particular conſtitutions, adapted as it were to the confluent, others to the diſtinct, and others to an intermediate ſmall pox; which conſtitutions cannot be changed by any means in our power. Beſides, theſe conſtitutions are often hereditary,

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ſo that we may predict the fate of children from what we know of their parents.

Our Author goes on to examine what phyſicians have done to change the nature, or abate the violence of the diſeaſe, and with what ſucceſs.

They have employed blood-letting; they have prohibited the eating of fleſh and fiſh; in regard to wine, oil, butter, and the like, they have either ordered or interdicted them in the ſame manner as *Rhaſes* has done. But they have never been able to overcome the fatality of the diſtemper. Let us conſult the bills of mortality in an age when the antiphlogiſtic method of *Rhaſes* has been introduced; whether the number of deaths have been fewer. From the year 1731 to 1750, 39,115 have died of the ſmall pox in London. It is evident, therefore, that neither diet nor medicines have any effect on the diſeaſe. The wiſer phyſicians declare, that they never could abate the violence of the ſmall pox, either by blood-letting or by medicines.

The preparation of the body, ſo much celebrated, has been carried on for a month, for two weeks, for twelve, ten, or for nine days before inoculation. But our Author aſks, If it is credible,

dible, that by blood-letting, acid diet, abſtinence, and the like, the conſtitution of the patient can be ſo ſoon changed? Conſult Gatti, Ranby, and Dimſdale, who often neglected all preparation, and you will find them all agreeing with me, ſays our Author, that preparation is altogether uſeleſs.

Dr Camper even goes farther, and thinks preparation hurtful, *1ſt*, Becauſe the nature of the contagion is not known; *2d*, Becauſe during the time of preparation, the patients to be inoculated are uneaſy from fear and apprehenſion; *3d*, When the ſmall pox is epidemic, the perſons to be inoculated are expoſed, by the delay, to the natural diſeaſe.

Our Author ſtarts the queſtion, Whether, upon indulging the patient in the uſe of fleſh, fiſh, and wine, *&c.* before inoculation, ſuch formidable ſymptoms had appeared, as to frighten phyſicians, and induce them to prohibit ſuch diet; or, after the example of Rhaſes, they have, without ſufficient experience, adopted ſo cruel and ridiculous a practice? He has himſelf allowed to ſome of his patients different kinds of fleſh and fat meats; in others, he has employed no medicine whatever during the courſe of the diſ-

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eaſe, and the event of his practice never diſappointed him. He acknowledges, however, that he was cautious, and never truſted patients to nature alone, but ſuch as were of a fair complexion. He has inoculated children labouring under *ſpina ventoſa*, and to whom he gave no medicines, with the beſt ſucceſs. With the ſame ſucceſs he has inoculated others, whoſe face and whole body was covered with herpetic eruption, without preparation, and without the adminiſtration of any remedy. Neither does he think, that in theſe inſtances he was guilty of imprudence; for, ignorant what was to be done, or what ought to be given, he choſe rather to commit the cure to *nature*, than to diſturb this careful and provident mother, by improper medicines. He quotes alſo the ſucceſsful inoculation of Murray and Dimſdale in a variety of chronic affections; and from the whole aſks, Whether the advantages in artificial ſmall pox, are not derived from the circumſtance of inoculation itſelf, and not at all from any preparation, or from medicines correcting or changing the craſis of the blood?

Our Author proceeds to conſider thoſe medicines which have been recommended as ſpecifics in

in the ſmall pox. Syrup of pearls, ſo much boaſted of by *Rhaſes*, antimony, mercury, either exhibited ſeparately or united, as was the practice of Boerhaave, and is ſtill that of our preſent inoculators, have each a ſhare of our Author's attention. He endeavours to ſhow the uncertainty of the ground upon which they are given; the little efficacy they have in changing the nature of the diſeaſe; and he concludes, from the whole of his reaſoning, and from his obſervation, that as yet no ſpecific has been diſcovered for the ſmall pox.

Many phyſicians, he obſerves, have a ſingular choice of diet for patients in the ſmall pox. Dr Camper thinks, that every kind of diet may be proper, provided the ſick take, in moderation, ſuch things as they have been accuſtomed to.

He is of the ſame opinion reſpecting the expoſure of the ſick to cold air. He condemns the Suttonian practice as unneceſſary, and frequently dangerous, from inducing other diſeaſes. He obſerves, that inoculation is equally ſucceſsful in the Indies, at the Cape of Good Hope, and even in the hotteſt regions of America, as in Sweden or in Ruſſia. The heat or coldneſs of the air, therefore, is of no conſequence; we are

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to conſult the habits of the patient in reſpect of the one or other.

In reſpect of the ſeaſon of the year, and the age of the patient, Mr Camper is inclined to avoid inoculating in the autumn; and he forbids the inoculation of very young children, eſpecially of infants on the breaſt, becauſe he has always found the eruption much more numerous with them than in patients more advanced in life. But when the natural ſmall pox are epidemic, theſe rules are not to be regarded.

The circumſtance of the *menſes* occurring in the courſe of the ſmall pox, has no bad effect, as ſome have thought, on the diſeaſe. Pregnant women may be inoculated with ſafety. Wet nurſes alſo, are inoculated, without detriment to the child, if it is not allowed to ſuck at the time when the eruptive fever commences.

In the choice of the matter for inoculation, Mr Camper agrees with all the inoculators, in preferring limpid matter, as being leſs liable to fail in giving the diſeaſe. It is beſt when taken from the wounds made on inoculation, eſpecially while the eruptive fever is going on. At the ſame time, he obſerves, that inoculation repeated for ſix days ſucceſſively, does no hurt, and one

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eruption only takes place, unlefs a fecond proceeds from a fecondary fever.

It is a matter of indifference, our Author obferves, from what kind of fmall pox the matter for inoculation be taken; at the fame time, it may be prudent to take it from the beft kind.

It is alfo a matter of little confequence, whether a greater or fmaller quantity of the virus be applied by one or more incifions.

In making the incifion, either with a needle or lancet, it is fufficient if we pierce the epidermis; it is immaterial whether the wound is bloody or not; and if it is, whether the blood is wiped off or not.

Mr Camper has added two plates, reprefenting the regular and irregular changes which appear to take place in the punctures that are made in inoculation; and he thinks they may be ufeful to young practitioners, who may not have had many opportunities of feeing inoculated patients.

## II.

*Observations, Medical and Political, on the Small Pox, and the Advantages and Disadvantages of general Inoculation, especially in Cities: And on the Mortality of Mankind at every Age in City and Country, &c. By* W. Black, M. D. 8*vo.* London. 1781.

THE first chapter of the work before us, our Author dedicates almost entirely to the consideration of small pox.—He first treats of the origin of small pox and measles; the treatment of the former, by the Arabians and Indians, and of inoculation in India and China; the transportation of the variolous infection to America; the introduction of inoculation to Europe; the advantages derived from it, together with the proportion of such as die in the natural and inoculated small pox.

He then proceeds to state the controversy respecting general inoculation in London and other great cities, at the private houses of the inhabitants; and concludes with an investigation of the probable effects of this practice, whether it would prove hurtful or beneficial to the community

nity at large.——Baron Dimſdale's different publications on this intereſting ſubject are examined; and, as our Author conceives, refuted.

The Baron has been a very warm opponent to a ſcheme that was propoſed for a general inoculation of the lower claſs of people in London, on the ſuppoſition of its having an influence in rendering the ſmall pox more deſtructive than they have hitherto been, by keeping up a more conſtant ſupply of variolous matter.

Though the loſs, ſays Baron Dimſdale, under inoculation is very inconſiderable, almoſt the whole of thoſe that are inoculated recovering; yet, by ſpreading the diſeaſe, a greater proportion take it in the natural way, more lives are now loſt in London than before inoculation commenced; and the community at large ſuſtains a greater loſs: The practice, therefore, he conſiders as more detrimental than beneficial to ſociety; and gives as the principal ſupport of his opinion, that the bills of mortality from ſmall pox in London, have of late years, ſince inoculation became ſo general, encreaſed to a truly alarming degree. The deaths from this diſeaſe, on a medium of the four years preceding the year 1776, having annually amounted to 2544.

In

In anſwer, however, to this opinion of the Baron's, Dr Black obſerves, that the aſſertion is not founded on fact; for before inoculation was introduced, he finds, that the deaths by ſmall pox were much more numerous than they have been ſince, even greater than in thoſe very years ſelected by Baron Dimſdale.

In the four years immediately preceding 1720, the number of deaths from this diſeaſe in London, amounted at a medium, to nearly 3000 annually; and at that period inoculation had been merely heard of in Britain, but had not come into practice. In 1710, when inoculation had ſcarcely been ever mentioned, the number of deaths from ſmall pox, we find to have amounted to 3138; and in 1681, to 2982.—— In 1721, ſo cautious and fearful were they of inoculation in London, that in that year an experiment was made of its effects upon ſix condemned malefactors, who by that means redeemed their lives. From 1722 to 1727, Dr Jurin could collect only 764 perſons inoculated in all that interval, including London and other parts of England; yet notwithſtanding, in 12 years only, from 1715 to 1728, ſmall pox deaths

are found in London to amount to 27,367; or nearly to 2300 annually.

From theſe and other facts, Dr Black thinks it highly probable, that inoculation has not hitherto had any influence, in rendering the natural ſmall pox more deſtructive than they were before this practice was introduced; and, if all ranks of people could be induced to ſubmit to a general inoculation, numbers, which are at preſent liable to be cut off by this fatal diſeaſe, might be annually ſaved to the ſtate.

Baron Dimſdale farther objects to general inoculation, that it would not probably be found to ſucceed; from the poor in London being miſerably lodged, from their houſes being in cloſe lanes, courts and alleys; from their being often in want of neceſſaries; and from the father and mother being ſo conſtantly abroad, in order to procure food and neceſſaries, as would put it out of their power to give proper attention to their children under inoculation; and from the ſame cauſe, ſuch articles of medicine and diet as might be thought proper by the phyſicians, would never be regularly adminiſtred.

Various arguments are adduced by our Author in anſwer to theſe obſervations of the Baron's on general inoculation; but the moſt concluſive,

clusive, we think, is, that bad impure air, and the several objections already enumerated, must surely prove more hurtful in natural and malignant small pox than in the mild artificial disease. ——The plan of an inoculating hospital, as proposed by Baron Dimsdale, would not, he thinks, prove of much utility, as none are proposed to be admitted under seven years of age, it being found impossible in hospitals to accommodate infants; but it is well known, that out of all that are seized with the natural small pox, a small proportion only occurs of such as have passed their seventh year; so that of consequence, if this plan should be adopted, a great part of mankind would be deprived of all the advantages resulting from the practice of inoculation.

With a view to render the utility of inoculation as general as possible, Dr Black proposes that a Dispensary should be erected solely for this purpose. Here all indigent people would get their children inoculated *gratis*, would receive whatever medicines might be proper; and in dangerous cases, able practitioners would be ready to attend at the patients houses.

All this, our Author observes, might be done with very little expence; for, with respect to

medicines, it is well known that very few are, in general, neceſſary in any caſe of inoculation; and ſuch as are found neceſſary, are by no means of an expenſive nature.—He likewiſe thinks, that there would be no difficulty in procuring the attendance, both of phyſicians and apothecaries: In the infancy of the ſcheme, he would expect this to be got *gratis*; but as the funds of the inſtitution increaſe, the Gentlemen employed, ought, he thinks, to be rewarded with proper ſalaries.

If ſuch a plan as is here propoſed, could be adopted to its full extent, the number of lives, which on moderate calculations, might thereby be expected to be ſaved to the public, would be very conſiderable indeed.—In the modern improved ſtate of inoculation, it is well known, that there is ſcarcely one dies of 500.—It is alſo known, that London, by births and recruits, requires an annual ſupply of, at leaſt, 29,000 individuals: Now, by the calculation of one to 500, out of 29,000 inoculated, 58 deaths only would enſue.

Extend this calculation to Great Britain and Ireland; by Davenant's eſtimate, the annual births among nine millions of inhabitants in theſe

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two iſlands, will amount to about 300,000; and ſuppoſing all theſe to be inoculated, and one out of 500 to die, the nation, inſtead of loſing 30,000 annually by ſmall pox, which it is pretty certain ſhe does at preſent, would loſe only 600; and extending the ſame calculation to all Europe, from the numbers we ſuppoſe it at preſent to contain, the deaths would not amount to more than 8000; and, according to this calculation, 392,000 lives would be annually preſerved, which are at preſent carried off by this dreadful diſorder.

Having conſidered with great attention this important ſubject in the firſt chapter of his work, Dr Black next proceeds to treat of bills of mortality. On this ſubject he beſtows two chapters. And in theſe, beſides an account of their eſtabliſhment in Europe, and many remarks on the mortality at different ages, in city, town and country, he preſents the reader alſo with many critical reflections upon the diſeaſes and caſualties which have proved moſt fatal. And he has given tables of the diſeaſes, caſualties and total deaths from 1701 to 1776; on which he offers many important remarks. But of theſe the limits of our work will not allow us to give an

 analyſis.

analyfis. We may only remark, that the Author's obfervations lead him every where to conclude, that the bills of mortality have hitherto been conducted in an imperfect and negligent manner; and that, therefore, before philofophers, phyficians, or the country at large, can derive any benefit from them, they muft undergo a very great reformation. And in a poftfcript to his work, he has propofed a plan for this purpofe.

In place of the prefent unequal boundaries of parifhes, and the uninformed rabble of parifh-clerks and female fearchers, to whom this bufinefs is at prefent entrufted, he propofes, that London, its fuburbs and contiguous villages, fhould be divided into 27 or 28 equal diftricts; and that to each of thefe, one infpector fhould be allotted with a falary of L. 60 *per annum*. Thefe infpectors fhould be chofen from amongft medical men, furgeons and apothecaries; and their certificate fhould be indifpenfible previous to interment. Each of thefe infpectors fhould make a monthly report to the general hall. And here, inftead of appointing a perfon ignorant of the principles of calculation, and ftill more of medicine, to fuperintend the general hall, to arrange

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and claſs diſeaſes, he propoſes to fill that important office with an able phyſician, and to allow him L. 200 of annual ſalary.

To render the returns of births and chriſtenings for London complete, he propoſes that the clergymen of every religious ſect, ſhould be compelled by law, to make a monthly return of their chriſtenings and weddings, to any appointed church in the neighbourhood or diſtrict, ſpecifying their religious ſect. And theſe he propoſes to be carried annually by each inſpector to the general hall. He propoſes alſo, that the inhabitants ſhould be numbered every ſeven years in the fulleſt ſeaſon of winter, and in ſummer when the town is moſt deſerted. By theſe means the regiſter of births and burials, might be rendered ſubſervient to the moſt uſeful purpoſes. And the expence, Dr Black thinks, might eaſily be defrayed by a fee of half-a-crown upon each death, or a ſmall tax upon undertakers. And for the better regulation of this important ſubject, he propoſes that it ſhould be put under the control and direction of the Royal Society, who ſhould chuſe the phyſicians and inſpectors. When conducted on this footing, he thinks it might add to the value of the annual publications of the

Society, and serve as a deep reservoir of important intelligence, a rich fund of medical and political knowledge.

III.

*A Treatise on Sympathy, in two Parts.* Part 1st, *On the Nature of Sympathy in general, and of Antipathy and the Force of Imagination:* 2d, *On Febrile Sympathy and Consent, and on the Balance and Connection of Extreme Vessels. By* Seguin Henry Jackson, *Member of the Royal College of Physicians,* London; *and of the Royal Medical Society,* Edinburgh; *and Physician to the* Westminster General Dispensary. *8vo.* London.

IN the beginning of the Treatise now before us, the Author endeavours to shew the extensive influence of sympathy in the animal œconomy. He considers it as the first and last principle of animal life, or of itself the living and sensitive principle. He considers sympathy as of two kinds, mental or corporeal. The first, he tells us, arises from a sensation in the mind determining to particular organs, or particular parts of the

the body, and raiſing in them certain feelings, actions and inclinations, ſometimes agreeable, ſometimes diſagreeable. Of this ſort are longings of various kinds, depreſſing paſſions, *&c.* Theſe, he thinks, may be called *ſympathies of conſciouſneſs.* The ſecond, he obſerves, depends upon the operation of external bodies, and the condition of the moving and ſentient extremities of the nerves; and more generally occurs in diſeaſed ſtates of the ſyſtem. Theſe he names *ſympathies of impreſſion.*

Theſe ſympathies he conſiders as being either inherent or acquired. The inherent ones are thoſe which have an evident utility. Of this kind are the ſympathies between the ſtomach and the whole ſyſtem, and between the ſtomach, uterus, and ſkin. Thoſe, again, he thinks may be called *acquired,* which are only brought to light by the occurrence of diſeaſe, and do not appear to anſwer any other apparent end. Of this kind are the ſympathetic pains between the inflamed liver and ſhoulder, the uneaſineſs of the glans penis from diſorders of the urinary paſſages, and the like.

Sympathy, in general, he conſiders as greater in young than in old people, which he thinks

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moſt probably ariſes from the parts of a young animal being more ſuſceptible of irritations. Sympathy he conſiders as being either ſimilar or diſſimilar. It is ſimilar when the actions, affections and ſenſations are exactly the ſame in the part ſympathizing with that firſt affected. It is diſſimilar when they are different from the actions, affections, and ſenſations of the part impreſſed. Of theſe different ſympathies, our Author gives many examples. And he ſhews, that ſympathy is moſt ſtrongly marked by affections of the ſtomach.

After theſe obſervations and diſtinctions of healthful ſympathies, the Author next proceeds to make ſome obſervations on the ſympathies which attend diſeaſes: Here alſo he endeavours to eſtabliſh many diſtinctions. He endeavours to ſhew, that inflammations may be ſympathetic as well as ſpecific: That diſeaſed ſympathy may be either univerſal or partial; and that when univerſal it may be either immediate or ſecondary.

Our Author next treats of the uſes of ſympathy. The natural ſympathies, he obſerves, are moſt evidently uſeful. In the caſe of diſeaſed ſympathies, this is leſs obvious. He next conſiders

ſiders what ſympathies may be applied to medicinal uſes; and gives examples of ſympathies which are uſeful to be known. An attention, he remarks, to the ſympathy between the ſtomach and ſkin is particularly neceſſary. In obſtinate vomitings, the warm bath may relieve and effectually put a ſtop to them. In cutaneous diſeaſes, we ſhould remember, that the ſtomach may be only ſympathetically affected, and that ſuch diſeaſes may be cured by the operation of medicines on the ſtomach.

In the fifth chapter, Dr Jackſon treats of the ſympathetic operation of medicines. Medicines, he obſerves, produce even univerſal effects by partial operation. Their ſympathetic action will be local, when only the ſurrounding parts act in concert with the part ſtimulated. It is to be conſidered as remote, when the remote parts ſympathizing have ſome ſpecific connection with the part ſtimulated, as the ſtomach with the teſtes, the head with the ſtomach, and the like. Such medicines as produce merely local ſympathy, may be claſſed among the local applications. But if local ſympathy did not aſſiſt the operation of medicines, they could have but little power to do good; as moſt local diſeaſes extend

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ſome way beyond the ſurface of expoſure. Thus, medicines applied ſimply to the ſkin, may relieve inflammations that go ſome depth. If this were not the caſe, how could a fomentation, which comes only in contact with the ſcrotum, give eaſe to a ſwelled teſticle. But the fomentation produces, he thinks, a healthy action in the ſurface of contact, and the neighbouring parts ſympathize with it, and are all relieved in a proportional degree.

It has in general been ſuppoſed, that aqueous applications to the ſkin, in which warmth is united, with moiſture, have the effect of penetrating, and thus relaxing. But although a bit of dried meat, or leather, may be affected in this manner, no effect of this kind can be produced in a living body, or even in a dead body, which ſtill retains its fluids. The ligaments, Dr Jackſon obſerves, will not become a bit ſofter, though the body were ſoaked for any length of time. Hence, while it is undeniable that warmth and moiſture have often good effects in facilitating the reduction of diſlocations, it is certain that they cannot act in the manner that has commonly been ſuppoſed. Dr Jackſon is of opinion, that the ſurface of contact is by their operation lulled or ſoothed;

ſoothed; and the irritability, either of the whole or part of the diſeaſed affection, is put to reſt. And it is this acquired diminution of partial excitement, which allows us to uſe violence more freely than before.

In the ſame manner alſo, he explains the action of unctuous and volatile applications as increaſing motion. For he contends, that the oil cannot poſſibly touch any internal part of an animal. He thinks, however, that the good effects ariſing from them are not entirely to be aſcribed to ſympathy, but in part ariſe from the mechanical motion uſed in the application of them. On ſympathy, alſo, he explains the effect of unctuous and volatile applications, in procuring the reſolution of indurated glandular tumors, that do not belong to the abſorbent ſyſtem. As the remedy cannot penetrate to the part affected, its effects muſt, he thinks, be aſcribed to its ſympathetic operation, from the ſtimulus which it affords to the ſkin. And he even thinks, that when mercurial ointment is rubbed on a ſwelled gland in the groin from ſyphilis, the effect is chiefly produced by ſympathy, from the ſtimulus of the remedy on the ſkin, both becauſe the abſorption muſt be very inconſiderable, and as the

the abſorbents, at the part of application, do not paſs through the ſwelled gland. He admits, however, that to produce a more conſiderable effect, it is proper to apply mercurial preparations to the leg or inſide of the thigh.

This firſt part of Dr Jackſon's treatiſe, is concluded with ſome obſervations on the ſympathy of the ſenſes, and the force of imagination. In this chapter he points out many inſtances of ſympathy produced by the paſſions and affections of the mind, and many ſympathetic affections of the external ſenſes. Here alſo, although he does not contend for the imagination of the mother having a power over the fœtus *in utero*, yet he thinks, that both ſympathies and antipathies often affect the child in the womb.

Before we conclude our remarks on this part of Dr Jackſon's treatiſe, it is proper to obſerve, that in many different places he acknowledges his having borrowed many of his ſentiments on this ſubject from that diſtinguiſhed phyſiologiſt Mr John Hunter. And he even mentions, that moſt of the arguments employed in ſeverai ſections are to be conſidered as his. It is much to be wiſhed, that this able philoſopher would communicate his ſentiments to the public on this

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subject in his own words: For the view which Dr Jackson has given, while it serves in some degree to gratify, must still more excite the curiosity of the reader.

After having treated of sympathy in general, our Author proceeds, in the second part of his Treatise, to consider febrile sympathy, and consent in particular.

Fever, he observes, is a state of the system characterized by the following circumstances. After an almost imperceptible diminution of strength in the animal functions, there comes on some degree of cold shivering, followed by an increase of heat, an increased frequency of pulse, and increased general debility. After this definition, he gives a very accurate enumeration of the different phænomena occurring in the cold, hot, and sweating stage of fever. And he delivers it as his opinion, that sympathy lays the foundation of the various changes. Parts similar, he observes, sympathize at one and the same time with the stomach, which he terms the grand sympathizer and fountain of sympathy.

This leads him to consider the physiology of the stomach, and its various affections in fever. Those affections of which he particularly treats,

are anorexia, nauſea and vomiting. Of theſe he thinks a more ſatisfactory explanation may be given, from the ſuppoſition of a conſtriction of the extreme veſſels of the ſtomach, than on any other footing. Every one will allow, he obſerves, that there is a ſufficient proof of ſuch a ſyſtem of veſſels being preſent in the ſtomach, from the frequent inſtances of large ſerous ſecretions, or, more properly ſpeaking, effuſions, which are collected there, and often evacuated by vomiting. And if there be juſt grounds for ſuppoſing a ſpaſm to be formed on the ſurface of the body, it is but reaſonable to conclude, that the ſame may take place in the ſtomach, and even through the whole of the inteſtinal tube. And if the former is in the extreme veſſels of the ſkin, it may from analogy be ſuppoſed, that the latter depends upon a ſimilar affection of the veſſels of the firſt paſſages.

In attempting to eſtabliſh this opinion, Dr Jackſon has on many different occaſions endeavoured to refute the opinion contended for by Dr Cullen, who will not admit that the veſſels of the ſtomach have any concern in this matter. On this ſubject, Dr Jackſon beſtows a whole chapter, in which he treats profeſſedly of the ſympathy

ſympathy and conſent between the ſtomach and ſkin in fever. There he endeavours to ſhow that this ſympathy and conſent depends upon the balance and connection of the extreme veſſels, and not upon the condition of the muſcular fibres of the ſtomach. And he is of opinion, that the balance and connection of the extreme veſſels giving the conſent between the ſtomach and ſkin, may be illuſtrated both by the operation of medicines and the general phænomena of fever. Nay, he attempts to ſhew, and in our opinion not without apparent probability, that the ſame arguments which Dr Cullen has made uſe of to illuſtrate his doctrine, afford ſtill ſtronger illuſtration and evidence of the doctrine now advanced.

After thus attempting an examination and refutation of Dr Cullen's doctrine, he concludes the preſent work by giving a ſummary view of his own opinion. His opinion is, that the remote cauſes of fever act with a ſedative effect, and induce a debility of the nervous ſyſtem, whereby the vital function of the heart and arteries is conſiderably and particularly affected: That this debility in the circulation will moſt readily be felt at the extreme veſſels, which ter-

minate at every part of the body; but particularly in thoſe at the ſkin and primæ viæ, from eſtabliſhed connection and mutual balance: That a conſtriction will then be formed, and an obſtruction take place in the ſecretions in general, in the exhalation of the perſpirable matter, and effuſion of the gaſtric and inteſtinal liquors: That this conſtriction not only proves a general ſtimulus to the circulation, in conſequence of a ſympathy between the heart and the veſſels, but a particular one to the ſtomach itſelf, as the firſt of the ſecreting organs: That this ſtimulus, at the ſame time that it increaſes the action of the heart and arteries, excites the ſtomach to vomiting; both which effects are to be conſidered as the efforts of the vis medicatrix naturæ, for the ſalutary purpoſe of reſtoring the condition of the extreme veſſels, and the ſecretory organs in general, to their natural and healthful ſtate; which being fully accompliſhed, the pyrexia and vomiting abate. Theſe operations our author ſuppoſes to be brought about upon the principle of a VIS INSITA SYMPATHIÆ.

Of this theory, we leave every reader to form a judgment for himſelf. While, however, we obſerve, that there are many circumſtances in the

the phænomena of fever, which, in our opinion, cannot be reconciled to this or to any other hypothesis which has yet been published, we must also add, that we consider the author as justly entitled to the merit of ingenuity, and sincerely wish him all success in his future speculations. He has indeed borrowed many things contained in the volume before us, from modern physiologists of the first eminence, particularly from Mr John Hunter and Dr Cullen. From the former, he has drawn a great share of the first part of his work; and from the latter, of the second. But he has in many different places acknowledged his obligations, both to them and the others; and he has delivered many opinions peculiar to himself. In some parts, he may perhaps be considered as having given too much scope to fancy; yet, from a candid perusal of his work, the discerning reader will find no difficulty in discovering many striking marks of fruitful invention.

## IV.

Jo. Wences, Nachtigal, *Differtatio de Submerfis.* Vid. *Fafciculus quartus Operum minorum Medicorum.* Francifci Xav de Wafferberg. 8vo. Vindobonæ.

THE treatife now under confideration is divided into two fections; the one, "De "caufa mortis fubmerforum;" and the other, "De auxiliis fubmerfis ferendis."

In the firft fection, our author takes into confideration, the different opinions which, in different ages, have prevailed, refpecting the immediate caufe of death in perfons who have fuffered from remaining too long under water.

Galen, he obferves, was of opinion, that death in fuch inftances is produced from the too free accefs of water, not only to the ftomach, but to the lungs; and this idea was univerfally adopted by all his followers, till towards the end of laft century.

About this period, Bohnius of Leipfick, and after him Becker, ventured to controvert this doctrine of Galen. For, on diffecting different fubjects, whofe bodies had been long immerfed in

in water, and in whofe ftomachs and lungs no water was difcovered, they were thereby induced to confider it as certain, that death in fuch inftances muft depend on fome other caufe than the admiffion of water to the ftomach and lungs.

This opinion, although for fome time much controverted, yet at laft came to be generally received. But the celebrated Mr Louis of Paris, in the profecution of a fet of experiments on this fubject, having, in a variety of inftances, found the lungs and mucus of the bronchiæ tinged with the fame colour of the water in which the animals had been immerfed, was thereby induced to confider the admiffion of water to the lungs in fuch inftances, as the caufe of death; and this opinion being afterwards adopted by Haller and others, came at laft to be almoft univerfally admitted. De Haen, however, having, in the diffection of different fubjects who had fuffered by immerfion in water, found no veftige of water in the lungs, continued ftill to fupport the opinion of Bohnius and Becker.

Surrounded with fuch a variety of fentiments, all of them fupported by great authorities, it comes to be a matter of much difficulty, our author

thor obſerves, to determine which of theſe ought to be adopted. He himſelf, however, is clearly of opinion, that, in all ſuch inſtances, death is to be attributed ſolely to the conſequences ariſing from a ſtoppage of reſpiration; for the lungs, in a collapſed ſtate, not being able to receive their uſual quantity of blood, a greater proportion muſt of courſe be ſent to the veſſels of the head; and, as ſuch an occurrence muſt certainly terminate in apoplexy, he conſiders this as the ultimate cauſe of death. By the experiments of Ruyſch, Raau, Boerhaave, Portal, and others, this fact is rendered evident, that injections paſs more readily and freely through the lungs, while they are diſtended with air, than when in a collapſed ſtate; and if ſo, no doubt, he thinks, can remain, of ſuch people as ſuffer from drowning, dying in a ſtate of apoplexy.

Having thus determined the cauſe of death, in ſuch caſes, to depend on a too great quantity of blood being forced into the veſſels of the brain, he now proceeds to inquire into the moſt effectual means of relief in ſuch inſtances as ſtill afford ſome reaſon to hope for ſucceſs.

The nature of the cauſe, our author obſerves, at once points out the propriety of an immediate

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loſs of blood; and, for obvious reaſons, any blood to be diſcharged, ought to be taken from the jugular vein. Independent, too, of the veſſels of the brain being more immediately emptied by an opening in this vein, we are more certain of procuring a free diſcharge from it than from any other; for, in moſt caſes of this kind, it is a very difficult matter to procure any conſiderable quantity of blood from other parts of the body.

At the ſame time that a ſufficient quantity of blood is diſcharging, attempts ought to be making for procuring, if poſſible, a return of reſpiration. For this purpoſe, one of the by-ſtanders is directed to apply his mouth to the mouth of the patient; and, having by ſtrong blowing inflated the lungs, he muſt with one hand prevent the eſcape of air by the noſe, while with the other he compreſſes the cheſt, ſo as to imitate reſpiration as nearly as poſſible. It ſometimes happens, we are told, that the lungs cannot in this manner be properly inflated: in ſuch caſes, we are deſired to introduce a curved tube at one of the noſtrils, and to fill the lungs by means of it. By this means, as recommended by Mr Portal, the tube falls directly in upon the

glottis, without any interference with the epiglottis; a circumftance which frequently proves troublefome on every attempt to introduce fuch a tube by the mouth.

When however even this method of inflating the lungs does not fucceed properly, bronchotomy is recommended as the laft refource.

Together with thefe remedies, frictions to every part of the body are recommended. The body is directed to be kept in a moderate degree of heat; ftimulants to be applied to the nofe; and fome advantage, we are told, has been reaped from injections of tobacco-fmoke into the inteftines.

Our Author condemns the idea of hanging the perfon by the feet with his head downwards. This can never be productive of any advantage; and, by increafing the determination of blood to the head, may even do much harm. Emetics, he thinks, might prove hurtful; but he agrees with Tiffot in recommending fome of the milder preparations of fquills, not with a view to excite vomiting, but merely to produce a gentle degree of naufea, which, in fuch cafes, he is inclined to confider as a ftimulus of a very ufeful nature.

## V.

*Obſervations on the ſuperior Efficacy of the Red Peruvian Bark, in the Cure of Agues, and other Fevers, interſperſed with occaſional Remarks on the Treatment of other Diſeaſes by the ſame Remedy. By* William Saunders, M. D. *Member of the Royal College of Phyſicians in London, and Phyſician to Guy's Hoſpital.* 8vo. London.

THE efficacy of the Peruvian bark in the cure of intermittent fevers, is now univerſally admitted. Almoſt every inſtance of want of ſucceſs is with juſtice attributed either to the medicine being bad in quality, or improperly adminiſtered. While the beſt mode of adminiſtration is a ſubject which has engaged the attention of many of the moſt able writers, the proper choice of the bark itſelf is perhaps ſtill more important in actual practice. In the treatiſe now before us, Dr Saunders attempts to throw new light, both on the choice of this medicine, and on its general application in practice. We can have no difficulty, therefore, in giving our aſſent to the author's aſſertion, when he obſerves, that, if the execution of his work were equal to its

its importance, it would challenge the attention of the public in a degree far above moſt medical ſubjects.

Dr Saunders introduces his obſervations with ſome remarks on what has been ſaid by former writers reſpecting the choice of Peruvian bark. He obſerves, that the inhabitants of Old Spain hold the Peruvian bark which is in pieces of the largeſt ſize in the higheſt eſtimation; but that, in England, the ſmall and quill bark has been preferred. He mentions ſeveral circumſtances, by which it is rendered probable, that the former is furniſhed from the trunks of old trees; while the latter is obtained from younger trees, not yet arrived at their full maturity. From this circumſtance alone, ſome preſumption is afforded, that it is a bark of a weaker quality. But whatever may be the true cauſe of the differences in the appearance of Peruvian bark, in the treatiſe now before us, undeniable evidence is afforded, that the bark of a large kind, having a coarſe appearance and red colour, is of much ſuperior efficacy to the white or yellow coloured bark which has hitherto been commonly imported into this country.

A conſiderable quantity of bark of the former kind, captured in a Spaniſh ſhip from Lima, was purchaſed by ſeveral druggiſts in London. Of this bark, Dr Saunders gives the following deſcription: It is, ſays he, in much larger and thicker pieces than the common Peruvian bark. It evidently conſiſts of three diſtinct layers: the exterior thin, rugged, and of a reddiſh brown colour; the middle thicker, more compact, of a darker colour, extremely brittle, and evidently containing a large proportion of reſinous inflammable matter; the innermoſt of a more woody and fibrous appearance, and of a brighter red, than the former. In reducing entire pieces of this bark to powder, the middle layer does not ſo eaſily give way to the peſtle as the others; but when due care has been beſtowed in reducing the whole to a fine powder, it is evidently more aromatic, and has a greater degree of bitterneſs, than the common bark. To determine ſtill farther the comparative powers of theſe articles, Dr Saunders inſtituted ſeveral pharmaceutical experiments, of which he has given a detail at full length. In theſe, he tried them with watery and ſpiritous menſtrua, by the addition of chalybeates, mineral acids, *&c.* From theſe experiments,

riments, for a more particular account of which we muſt refer our readers to the work itſelf, he draws the following concluſions :

1. That the red Peruvian bark is more ſoluble than the common, both in water and ſpirit.

2. That it contains a much larger proportion of active and reſinous parts.

3. That its active parts, even when much diluted, retain their ſenſible qualities in a higher degree than the moſt ſaturated ſolutions of common bark.

4. That it does not undergo the ſame decompoſition of its parts by boiling as the common Peruvian bark.

And as a proof of the ſuperior antiſeptic power of the red bark, he obſerves, that both its cold infuſion and decoction were found to preſerve entire their bitter and other medicated qualities; while the infuſion and decoction of common bark, prepared at the ſame time, and in the ſame proportions, had altogether loſt their ſenſible qualities.

To theſe pharmaceutical experiments, Dr Saunders next ſubjoins ſome obſervations on the general operation of bark on the human body. He obſerves, that in health it promotes appetite

and

and digeſtion, it has a tendency to bind the belly, and it renders the pulſe fuller and ſtronger. All theſe effects he has found produced in a much higher degree, by the red, than by the common Peruvian bark. With regard to the uſe of the bark in the cure of intermittents, he obſerves, that although cautious and timid practitioners have in general forbid its uſe, till evacuations have been made; yet in theſe which are endemic, in low and marſhy ſituations, it cannot be given too early; and that the uſe either of emetics or purgatives, as preparatory, is not only unneceſſary, but in ſome caſes productive of more debility, and therefore to be avoided. By this, however, he does not mean to inſinuate, that no caſes occur in which it may not be prudent to adminiſter a vomit, eſpecially to perſons ſubject to bilious accumulations in the ſtomach. But this is more with the view of removing an obſtacle to the operation of the bark, than as neceſſary to render it ſafe.

Dr Saunders agrees with moſt practitioners, in thinking, that bark cures intermittents more readily when taken in ſubſtance, than in any other form. But he thinks, that it ought rather to be diffuſed in ſome liquid, than given in the

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form of an electuary or pills, which are sometimes difficultly soluble. As the best means of correcting the taste, he recommends that it should be taken in milk, old hock, or a solution of extract of liquorice. With regard to the dose, he thinks it unnecessary to limit it; one dram given every hour, will remove the disease more quickly than a smaller quantity given at longer periods.

He has found in several instances, that the red bark has removed both tertians and quartans, which had resisted the common bark. It is so much warmer than the other, that it answers all the purposes derived from the union of cordials and aromatics with the common bark. In proof of this, several cases are related. From the first of these, it appears, that an intermittent fever, which had continued for five months, and had obstinately resisted the common bark, although taken to the quantity of a dram every hour, was cured by taking one dram of the red bark every second hour, for the space of ten days.

From this, and several similar cases, Dr Saunders began to entertain hopes, that even a cold infusion of the red bark would, in most cases,

cure

cure intermittent fevers, and in all other cafes would anfwer every end which could be expected from common Peruvian bark, in any form in which it had hitherto been employed. He accordingly formed a cold infufion, by pouring a quart of cold water on two ounces of the red bark in fine powder, and frequently agitating the mixture for the fpace of twenty-four hours. Three cafes are related of trials made with this infufion. In the firft of thefe, a tertian, which had fubfifted for many months, was ftopped in two days, by taking four ounces of the cold infufion every third hour. And by perfevering in its ufe for fourteen days, the patient was perfectly cured. In the fecond cafe, a tertian of five weeks ftanding, accompanied with a confiderable degree of cough, efpecially occurring in the cold fit, was cured by the cold infufion, taken in the fame manner, and the cough alfo was totally removed. And in the third, a quotidian, which had continued near a year, was removed by taking the cold infufion, to the extent of a quart in twenty-four hours, for three days.

To thefe cafes, Dr Saunders fubjoins fome obfervations on the ufe of the red bark in the

cure of other fevers. He obſerves, that the fevers of this country ſeldom have regular remiſſions, until they have been properly treated, by evacuations, the inflammatory by bleeding, and the bilious by vomiting and purging. But when they are brought into ſuch a ſtate of remiſſion, that the pulſe becomes ſlower, that the reſtleſſneſs, anxiety and tendency to delirium, abate, that the mouth and fauces are moiſt, and that the ſkin is more open and pervious at ſome particular time in the twenty-four hours, he thinks that the bark may be given with the ſame freedom as in fevers with diſtinct intermiſſion, and that the red bark may be employed with peculiar advantage.

Notwithſtanding the inflammation at the attack of acute rheumatiſm, and the appearance of the blood in that diſeaſe, Dr Saunders contends, that the diſeaſe very early aſſumes the form of a remitting fever. When this comes to be the caſe, he condemns the perſeverance in the antiphlogiſtic plan, and recommends a cold infuſion of the red bark, which he tells us, he has found from experience to be much more ſucceſsful than the uſe of volatiles and guaiac.

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In putrid and malignant fevers, Dr Saunders thinks that the cure is to be effected by vomiting and warm cordials*; and, as the beſt article of the latter kind, he recommends the red bark, infuſed in wine, by which means, it becomes a more powerful antiſeptic. With the ſame intention alſo, he recommends its union with acids.

Upon the whole, Dr Saunders concludes with expreſſing his hopes, that the obſervations which he has preſented to the public, will remove all prejudices againſt a Peruvian bark of a larger and coarſer appearance, and redder colour than that commonly employed. And, in confirmation of his own opinion, he ſubjoins extracts of letters from Mr Jacob of Feverſham, Mr Boyſe of Sandwich, Sir William Biſhop, Dr Withering of Birmingham, Mr Sherwin of Enfield, and Dr Fothergill of Harpur-ſtreet. The concurring teſtimony of all theſe eminent practitioners, confirm the opinion which Dr Saunders had formed from his own obſervations, and ſhews that the red Peruvian bark is more powerful than any other kind.

## VI.

*An Account of ſome Experiments on Mercury, Silver, and Gold, made at Guildford, in May* 1782, *in the Laboratory of* James Price, M.D. F.R.S. *To which is prefixed an Abridgement of Boyle's Account of the Degradation of Gold.* 8vo. Oxford.

THE numerous fictions with which alchymiſts impoſed upon the world, in darker ages, have long ſince been fully refuted and expoſed in the moſt ſatisfactory manner. After what has already been ſaid and done upon this ſubject, it would hardly have been expected, that, in the end of the eighteenth century, any philoſopher would have been found hardy enough to lay pretenſions to the art of making gold. The principal intention, however, of the treatiſe now before us, ſeems to be, to announce to the public, diſcoveries which, if well founded, are unqueſtionably the moſt extraordinary that have been made for many years. Among others, we may mention the fixing of mercury, ſo that it is prevented from boiling in a red heat, and the tranſmutation of baſer metals into gold and ſilver.

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These discoveries, however, singular as they must appear, are now announced to the public, not on the authority of a nameless or obscure inventor, but on that of a gentleman of independent fortune, whose industrious exertions, and successful attainment of knowledge in the line of chemistry, have been rewarded with marks of peculiar distinction by one of the most eminent and learned societies in Europe, the University of Oxford. And still farther weight is added to the narrative, from the experiments having been performed in presence of many witnesses; among whom are several names of high eminence, both in the political and in the literary world. We may therefore necessarily suppose, that they could neither be deceived themselves, nor could harbour an intention of deceiving others.

Under these circumstances, notwithstanding the most positive preconceived opinion against the possibility of converting baser metal into gold, and of preventing the natural, and, we may safely venture to say, almost irresistible influence of fire; yet still every one who is a real friend to improvement, must consider the treatise before us as meriting some attention.

In the introduction to this treatise, Dr Price observes, that a frequent perusal of ancient chemical writers inclined him to believe, that the wonders related in their works, though frequently exaggerated, had at least some foundation; and he found that some discoveries, supposed to be modern, were really recorded by very ancient writers. Specific gravity being usually considered as one of the least dubious marks of real identity between two bodies otherwise dissimilar, it seemed probable to our author, that mercury and gold had a basis nearly alike; while the remarkable analogies between the habitudes of silver and mercury to chemical solvents and other agents, are known to every chemist. Amidst these reflections, although bewildered in a chaos of discordant opinions, yet the specious glitter of some broken gems allured him to prosecute his search concerning these subjects of which he here treats: And that, in these, he has obtained a degree of success beyond any former inquirer, appears from the result of the experiments, of which a detail is here given, and which were performed in presence of many witnesses, all of whom were fully qualified

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to detect fallacy in a matter in which every man of common ſagacity could not be deceived.

To the introduction of this work, as may be inferred from the title, is prefixed an abſtract of Mr Boyle's account of a degradation of gold. Of this it would be altogether foreign to our plan to give any analyſis; and, in place of attempting to give a ſhort view of all the experiments in Dr Price's treatiſe, we ſhall here preſent our readers with a few of them at full length, from which we apprehend they will be better able to form a judgment on this ſubject, than from any analyſis.

EXPERIMENT I. *made May 6. 1782, before the Rev. Mr Anderſon, Captain Francis Groſe, Mr Ruſſell, and Enſign D. Groſe.*

Half an ounce of mercury, provided by Captain Groſe, bought at an apothecary's of the town, was placed in a ſmall Heſſian crucible brought by Mr Ruſſell, on a flux compoſed of borax, alſo brought by him; a ſmall piece of charcoal, taken out of a ſcuttle fortuitouſly by Mr D. Groſe, and examined by the reſt of the company; and a ſmall piece of nitre, taken alſo

without ſelection by the Rev. Mr Anderſon, from a quantity in common uſe in the laboratory. Theſe being pounded together in a mortar, which all the company had previouſly inſpected, were preſſed down into the crucible with a ſmall peſtle. On this flux the mercury was poured by Mr Anderſon; and upon it, half a grain of a certain powder, of a deep red colour, furniſhed by Dr Price, carefully weighed out by Mr Ruſſell, was put by Mr Anderſon.

The crucible was then put in a fire of a moderate red heat by Dr Price, who, from his greater facility of managing the fire from long habit, was thought moſt eligible to conduct the experiment. He repeatedly called the attention of the company to obſerve the ſtages of the proceſs, and to remark in every part of it, that any voluntary deception on his part was impoſſible.

In about a quarter of an hour from the projection of the powder and the placing of the crucible in the fire, he obſerved to the company, who, on inſpection, found his obſervation true, that the mercury, though in a red-hot crucible, ſhewed no ſigns of evaporation, or even of boiling. The fire was then gradually raiſed, with attention on the part of the company, and repeated

peated calls for that attention from Dr Price, that no undue addition might be made to the matter in the crucible. In a ftrong glowing red, or rather white-red, a fmall dip being taken on the point of a clean iron-rod, and, when cold, the fcoriæ fo taken and knocked off, were fhewn to the company, and found replete with fmall globules of a whitifh-coloured metal, which, Dr Price obferved to them, could not be mercury, as being evidently fixed in that ftrong heat, but, as he reprefented to them, an intermediate fubftance between mercury and a more perfect metal.

A fmall quantity of borax, brought by Mr Ruffell, was then injected by him, and the fire raifed, but with the fame precautions on the part of Dr Price, to fubject every thing to the minute infpection of the perfons prefent; and, after continuing it in a ftrong red white heat for about a quarter of an hour, the crucible was carefully taken out, and gradually cooled. On breaking it, a globule of yellow metal was found at bottom, and, in the fcoriæ, fmall ones, which, when collected and placed in an accurate balance by Mr Ruffell, were found to weigh fully ten grains. This metal was, in prefence of the

above mentioned gentlemen, ſealed up in a phial, impreſſed with the ſeal of Mr Anderſon, to be ſubmitted to future examination, though every one preſent was perſuaded that the metal was gold.

The ſeal being broke the next morning in preſence of the former company, and of Captain Auſten, and the metal hydroſtatically examined, the weight of the larger globule, the others being too minute for this mode of examination, was found to be in air nine grains and a quarter, and in diſtilled water of temp. Fahren. fifty plus, it loſt ſomething more than three eighths, but not quite an half, of a grain. The ſpecific gravity muſt have been nearly as 20 : 1, and in this eſtimate all preſent acquieſced.

After this hydroſtatical examination, the globule was flattened by percuſſion into a thin plate, and examined by Mr Ruſſell, in the manner of artiſts for commercial purpoſes. On finiſhing his ſcrutiny, he declared it to be as good gold as the grain gold of the refiners, and that he would readily purchaſe ſuch gold as that he had juſt examined, at the higheſt price demanded for the pureſt gold.

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The plate being then divided, one half was, before the company, ſealed up by Mr Anderſon, to be ſubmitted to a trial of its purity, which Dr Price propoſed that he ſhould requeſt his friend Dr Higgins of Greek-ſtreet to make. The remainder being put into aqua regia of nitrous acid and ſal ammoniac, afforded a ſolution ſufficiently rich, before the company ſeparated, to yield, with ſolution of tin, a richly coloured crimſon precipitate.

Captain Groſe was accidentally abſent when the precipitate was made, but ſaw it next day. In about four hours, the portion of metal employed was completely diſſolved; and the next morning, before Captain and Mr D. Groſe, and Mr Ruſſell, Mr Anderſon being prevented from coming, the ſolution being divided into three portions, the following experiments were made.

To the firſt portion, diluted with water, was added a quantity of cauſtic volatile alkali, and the precipitate, which was copious, being duly ſeparated and dried, about a grain of it, placed on a tin-plate, was heated, and found to explode ſmartly. This experiment was repeated three times.

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To the second portion diluted, was added a portion of solution of tin in aqua regia. A beautiful crimson-coloured precipitate was immediately found in considerable quantity, which, when dried, was mixed with a fusible frit, composed of flint-powder and the fluxes proper for the ruby-glass of Cassius, in the proportion of five grains of the precipitate to two ounces of the frit; and, in a vitrifying heat, it afforded, in about three hours, a transparent glass, which, by heating, again assumed an elegant crimson colour. The remainder, which continued in the fire, also assumed a bright red colour.

The third portion being mixed with vitriolic æther, imparted to it the yellow colour given to this fluid by solutions of gold; and the æther being evaporated in a shallow vessel, a thin purplish pellicle adhered to the side, spotted in several places with yellow.

Dr Higgins soon after receiving the piece of metal, favoured the author with an answer, in which he notified, that the packet came to him under the proper seal, and that he was well satisfied of the purity of the gold he had received.

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EXPERIMENT II. *made at Dr Price's May 8. 1782, before Sir Philip Clarke, Dr Spence, the Rev. Mr Anderſon, Captain Groſe, Mr Ruſſell, and Enſign Groſe.*

Half an ounce of mercury being procured from Mr Cunningham, an apothecary in the town, was placed on a flux compoſed of an ounce of powdered charcoal, two drams of borax, and one ſcruple of nitre, and, on it, when a little warm, was projected one grain of a white powder furniſhed by Dr Price.

After the crucible had acquired a red heat, the company all ſaw the mercury lying quiet at the bottom, without boiling or ſmoking in the leaſt; and it continued in this tranquil ſtate, after it had gained a full red heat. It was continued in a fire gradually augmented to a white heat, full three quarters of an hour, a ſmall crucible, previouſly inſpected, being inverted on it, to prevent coals from falling in; and the crucible being then withdrawn and cooled, many globules of white metal were found diffuſed through the whole maſs of the ſcoriæ; of theſe, globules were collected, to the weight of ten grains, before the company ſeparated, and conſigned

ſigned to the care of Mr Ruſſell, who took them away with him.

Part of the remaining globules being afterwards collected, by pounding the crucible, and waſhing over the powder, the whole melted together amounted to thirteen grains. Mr Ruſſell, in the courſe of a few days, cauſed this metal to be aſſayed in the artiſts manner for the refiners, at the office of Meſſrs Pratt and Dean, aſſay-maſters near Cheapſide, and they reported it to be ſilver of the moſt complete purity.

EXPERIMENT VII. *made Saturday 25th of May* 1782, *in preſence of the Lords Onſlow, King, and Palmerſtone, Sir Robert Barker, Sir Philip Clarke*, &c.

Two ounces of mercury were taken from a ciſtern in the laboratory, containing about two hundred weight, and rubbed up with a few drops of æther, in a ſmall Wedgewood's ware-mortar. A grain of the white powder was then projected, and afterwards rubbed up with it. The mercury, which, before the addition of the powder, had been very bright and fluid, was now perceived by the company to be dull, and to run heavily,

vily. It was poured out into a ſmall glaſs-veſſel; and, after ſtanding about forty-five minutes, was put into a cloth to be ſtrained. It now poured ſo ſluggiſhly that the latter portions of it ſeemed to be in a ſtate intermediate between fluidity and ſolidity. Great part of the ſuperfluous mercury being ſtrained off, a maſs, ſimilar to an amalgam, was left in the cloth, and the remaining mercury, which could not be preſſed out, being driven off by fire, from a portion, about a fourth of the whole maſs, a globule of white metal, which had all the appearance of ſilver, remained, and was kept in a white heat for about two minutes before the blow-pipe. This globule weighed about ten grains, ſo that the whole product, by means of one grain, if collected, would have been found to be forty grains.

On the ſame day, and before the ſame reſpectable company, half an ounce of mercury, revivified from cinnabar, brought by the Rev. Mr Anderſon, was by him placed in a ſmall round Engliſh crucible, taken from among a number of others in the laboratory by Lord Palmerſtone, on a flux compoſed of a ſmall piece of charcoal and a piece of borax, both taken caſually by ſome of the company, from large quantities,

quantities, and pounded in a mortar previoufly infpected by thofe prefent.

This flux being preffed down in the crucible with a fmall peftle alfo examined, the mercury was poured into the depreffion by one of the fpectators, and on it half a grain bare weight of the red powder was put by Lord Palmerftone. The crucible being then covered with a lid, taken in the fame manner as the crucible from among many others, and fhewn round to the company, was placed in the furnace, furrounded by lighted charcoal.

One or more of the company, particularly the Lords King and Palmerftone, were, during the whole time of the experiment, clofe to the furnace and operator, and, as requefted by him, gave the clofeft attention to every part of the procefs.

When the crucible had acquired a full red heat, the cover was removed, and feveral of the company faw the mercury in a tranquil ftate, neither evaporating nor boiling, in which ftate it continued even when the mercury itfelf was completely ignited.

The cover being replaced, the fire was gradually raifed to a white heat. The crucible be-

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ing continued in this heat for thirty minutes, was taken out, cooled, and broke.

A globule of metal was found at the bottom, neatly fufed, and exactly filling the cavity of the divided fcoriæ. The globule fell out by the blow among the fragments of the crucible, and was taken up and fhewn round to the company by Lord Palmerftone, and in their prefence replaced in the hollow of the vitrified borax, to which it was accurately adapted.

Many other globules were diffufed through the fcoriæ attached to the fides of the crucible, fragments of which were diftributed among the company at their requeft.

The bead which lay at the bottom weighed about ten grains, and was found to be perfectly pure filver, as appeared from the report of an affay-mafter, recommended by the clerk of the goldfmiths company.

From the experiments here related, every reader will be able to form an opinion for himfelf concerning the fuccefs which Dr Price has had. But without prefuming to offer any remarks which may influence their judgment, we cannot help expreffing our regret, that a chemift in Dr Price's fituation, fhould not have alfo publifhed

bliſhed the proceſs by which his red and white powders were obtained; and that the rather, as we are told in the introduction, that he has already expended the whole of them, and does not propoſe to furniſh himſelf with a ſecond portion, having obtained them by a tedious and operoſe proceſs, the effects of which he has experienced to be injurious to his health, and that he muſt therefore avoid the repetition of it.

## VII.

*An Account of the Jail Fever, or Typhus Carcerum, as it appeared at Carliſle in the year* 1781. *By* John Heiſham, M. D. 8vo. London.

OUR author, in his Preface, aſſigns as the motive of the preſent publication, " That " the treatment of the diſeaſe, which was adopt- " ed and ſucceſsfully purſued at Carliſle, appear- " ed to differ in ſome circumſtances from what " has hitherto obtained in general practice, par- " ticularly in the more early application, and in " the much freer uſe, of bark and Port-wine. " With reſpect to the quantity of wine; where- " as Sir J. Pringle never directed more than a " bottle

"bottle in the day, and rarely ſo much, we "have preſcribed from one bottle to two bottles "and an half daily, and always with advantage. "The doſes of the bark are alſo nearly double "to thoſe which the ſame eminent Phyſician "uſually exhibited."

Here we muſt remark, that the difference of practice betwixt our author and Sir J. Pringle, is more apparent than real, and ſeems to us chiefly, if not altogether, to originate from the different ſituations in which they were placed. The typhous patients of Sir J. Pringle were ſoldiers, men generally about the prime of life, well fed, of plethoric habits and ſanguine temperaments; of courſe, inflammatory ſymptoms often run high during the firſt ſtage of the fever. Sir J. Pringle, with his uſual ſagacity, ſometimes took away a little blood, and was always during this period reſerved in the uſe of bark and wine. But, in the latter period, he judiciouſly gave both thoſe articles according to the urgency of ſymptoms, of age, the conſtitution and former habits of the patient, and altogether abſtained from the uſe of the lancet.

Our author's patients again, according to the account he has given, were the pooreſt and

meaneſt inhabitants of Carliſle, all of them ill fed, ill clothed, and many of them paſt the prime of life. He, with propriety therefore, altogether omitted bleeding, and from the very beginning gave bark and wine with a liberal hand.

The truth is, here, as every where elſe, no general doctrine can be delivered, which is not varied ſomewhat by circumſtances and ſituation. In the preſent caſe, it would be equally unjuſt to affirm, with Dr Heiſham, that two bottles and a half of port-wine may always be given, with advantage, to an adult in the typhus carcerum, as to ſuppoſe with Sir J. Pringle, that one bottle only was the ſtandard quantity. In the nature of things, this admits not of a preciſe limitation; it depends upon a variety of contingent circumſtances, and muſt always, in the laſt reſort, be intruſted to the judgment of the practitioner, at the patient's bed-ſide.

Thus much, candour, and a reverence for the illuſtrious dead, obliged us to remark.

We proceed now to the diſſertation itſelf. Dr Heiſham divides it into five ſections.

In the *firſt*, He treats of the hiſtory and ſymptoms of this fever. In the *ſecond*, Of the prognoſtics.

gnoſtics. In the *third*, Of the remote cauſes of this fever, and particularly of the occaſional cauſes. In the *fourth*, Of the cauſes which predispoſed, or rendered the body more liable to be affected by the occaſional cauſe when applied. And, in the *laſt*, He treats of the cure.

With reſpect to the hiſtory of the diſeaſe, we are informed, that about the beginning of April, or end of March, this fever appeared in Carliſle, at an houſe in Richard-gate, which contains about half a dozen very poor families. It continued during the remainder of the year, but was in a great meaſure confined to the town itſelf; and then it raged with more violence in the ſuburbs than within the walls. It chiefly, if not ſolely, attacked the common and lower ranks of people, more eſpecially thoſe who lived in narrow, cloſe confined lanes, and in ſmall crouded apartments. The married ſeemed more ſubject to it than the ſingle, adults than children, and women than men.

On the 6th January 1782, about ſix hundred had been ſeized with it, that is, about one in eleven or twelve of all the inhabitants of Carliſle, and nearly one in ten died, of thoſe who were attacked by the diſorder; for, upon ſearching

 the

the regiſter of deaths, it appeared, that two fell victims to it in the month of May, four in June, four in July, eight in Auguſt, ſeven in September, nine in October, eight in November, and ſix in December; in all forty-eight, beſides a ſoldier of the firſt regiment of dragoons, and three ſtrangers.

Our author next preſents us with a very diſtinct detail of ſymptoms, which he very properly divides into common and anomalous. With reſpect to the common, they are too generally known to require any recapitulation. The anomalous are the following: A diarrhœa in the firſt ſtage of the fever. A cough, ſometimes with, at other times without expectoration. The pulſe now and then ſtronger than is uſual in typhus. In one or two inſtances, a difficulty of making water, and a ſwelling of the abdomen, with evident fluctuation, occurred.

A relapſe was never obſerved.

Our author, though a profeſſed believer in the general doctrine of critical days, and eager to have his faith ſupported by ſome new props, on this occaſion, candidly confeſſes his diſappointment. He obſerved patients die in almoſt every day of the fever, from the fifth or ſixth, to the ſixteenth or ſeventeenth, and the ſalutary

terminations

terminations occurred as frequently on the non-critical, as on the critical days.

As the temperature of the ſeaſon has been often ſuppoſed greatly to influence epidemic diſeaſes, we have here a regiſter of the weather, as to cold, heat and moiſture, previous to the appearance of the diſeaſe, at its riſe, and during its progreſs and decline.

In the ſecond ſection, Dr Heiſham treats of the prognoſtics in this diſeaſe.

On this part of the ſubject, Dr Heiſham contents himſelf with pointing out, *firſt*, Thoſe ſymptoms which indicate a favourable iſſue; and *next*, Thoſe which portend danger and death. He is of opinion, that neither petechiæ, nor a bleeding at the noſe, unleſs accompanied with other dangerous ſymptoms, indicate imminent danger: For ſeveral patients, with thoſe ſymptoms, recovered as well as others who were not affected by them. He never obſerved, however, either petechiæ, a ſcarlet effloreſcence, or a bleeding at the noſe, in patients who began to take the bark and wine, early in the diſeaſe.

The remote cauſes of this fever, and particularly the occaſional cauſes, are the ſubjects conſidered in the third ſection.

Our author adduces the following reaſons for believing that the ſtate of the weather was not a very powerful agent in this epidemic. In the *firſt* place, It was confined, in a great meaſure, to the city and ſuburbs of Carliſle. In the *ſecond* place, The ſtate of the air, when the fever raged with the greateſt violence, was different from what it had been when it firſt appeared, but ſimilar to what it was when the diſeaſe was manifeſtly on the decline.

After finding the ſtate of the weather an inadequate cauſe to produce the effects, Dr Heiſham thinks it probable, that human effluvia was the occaſional cauſe of this fever. He here enters upon the argument of contagion at ſome length. In ſupport of the opinion, the melancholy, but well known effects of human effluvia, at the Aſſizes held at Oxford, in the year 1577, and during the Seſſions of the Old Bailie, are quoted and appealed to. After ſeveral other general obſervations, for further information, we are referred to Huxham, Pringle and Lind.

When our author comes to treat of the cauſes which prediſpoſed, or rendered the body more liable to be affected by the occaſional cauſe when applied, inſtead of attempting to explain the

the *modus operandi* of thoſe cauſes, he deems it enough briefly to enumerate them under the nine following heads.

1. A poor watery diet.
2. Uncleanlineſs.
3. Cold.
4. Intemperance in drinking.
5. Exceſs in venery.
6. Fatigue.
7. Grief and anxiety.
8. Fear.
9. Previous diſeaſe.

By avoiding thoſe prediſpoſing cauſes, the Doctor obſerves, that perſons even expoſed to the contagion, will, in general, eſcape the diſeaſe; but to render them ſtill more ſecure, he recommends a generous diet, with a liberal uſe of wine, or ſpirits, the Peruvian bark, and moderate exerciſe in the open air.

In the fifth ſection of this work, Dr Heiſham treats of the cure.

On this important part of the ſubject, our author is very diſtinct and correct, but his practice does not appear to us to differ very materially from that now generally eſtabliſhed.

From the train of ſymptoms, he is led to infer, that the diſeaſe in a great meaſure conſiſts in extreme debility, and in a tendency of the fluids towards putrefaction. Hence the following indications of cure are deduced; *firſt*, To remove the cauſes, or obviate the effects of debility. *Secondly*, To obviate or correct the tendency of the fluids to putrefaction.

The cauſes which continue to operate after the diſeaſe is fully formed are, effluvia from the patient's own body, grief, anxiety, and fear. The operation of the firſt of thoſe cauſes may be counteracted in a great degree by a little attention. Of this, Dr Heiſham was well aware. He accordingly ordered the patient clean linen every day. A ſtream of freſh air was directed upon the ſick-bed, and the chamber kept pure and ſweet, by the diligent removal of the excretions, whether feces or urine. By theſe means, we doubt not, an accumulation of the effluvia would be prevented, and of courſe its virulence much diminiſhed.

Dr Heiſham next ſubjoins ſome obſervations reſpecting the regulation of paſſions of the mind. He directs, that if the patient be anxious about his fate, he ſhould be inſpired by hope; if influ-

enced

enced by fear, his courage ſhould be rouſed; and if grieved, his ſorrow is to be ſoothed. But, above all, every thing which tends to produce fear, eſpecially in thoſe who are already ſick, ought to be ſedulouſly avoided. This leads the author to take notice of ſome practices in Carliſle, which had a very great effect in that way, particularly the tolling of the death-bell, the invitation to burials by the public crier, and the funeral pſalms ſung through the ſtreets. As ſoon, however, as Dr Heiſham repreſented the evil tendency of theſe practices to the learned Dr Percy, then Dean of Carliſle, they were inſtantly reformed as far as lay in his power; an example well worthy of imitation, at leaſt on ſimilar occaſions, in other places where the ſame practices prevail.

Our author next proceeds to the particular treatment of the diſeaſe.

At the commencement of the epidemic, before he had an opportunity of accurately aſcertaining its nature, when called early in the firſt ſtage of the diſeaſe, he ordered the ſaline mixture, and, in caſe of coſtiveneſs, ſuch a quantity of tartar emetic combined with it as was ſufficient to obviate that ſymptom, but not to induce

duce any great degree either of naufea or vomiting, which he found always hurtful. But, after he had more accurately afcertained the nature of the epidemic, and when not called, which was generally the cafe, till the firft ftage was over, he rejected tartar emetic as an ufelefs and even noxious medicine, altogether omitted the faline mixture, and confided folely in the liberal ufe of bark and wine.

The following was his common formula for adminiftering the bark:

℞. Pulv. cort. Peruv. opt. unc. unam.
Rad. ferp. virgin. dr. duas.

M. & divide in partes duodecem æquales; fumat unam, fecunda, vel tertia, quaque hora, ex vin. rubr. hauft.

When the patient's ftomach could not bear the bark in fubftance, a ftrong decoction was ufed as a fubftitute. To adults, from one to two bottles and a half of wine, were given in the fpace of twenty-four hours; and our author thinks, that even more might have been given with advantage, as he never faw any bad effects from an excefs, though very often from the too fparing ufe of this grateful cordial.

Pediluvium

Pediluvium was found more prejudicial than uſeful; but fomentations of the feet and legs were uſed with advantage.

Though bliſters did not appear to affect the general ſyſtem, or raiſe the pulſe, they very evidently relieved the pain of the head, which was often violent.

The ſymptomatic diarrhœa was immediately attempted to be checked, by the free uſe of aſtringents and opium, without any fear of retaining a putrid fomes in the inteſtinal canal.

Glyſters were ſeldom employed, unleſs in caſes of irritation, from a too long retention of the feces.

When ſymptoms of catarrh were conjoined with fever, the wine and medicines were adminiſtered a little warm, and the rad. ſerpent. virg. omitted. When the debility was exceſſive, and the danger great, though unattended with diarrhœa, our author had recourſe to opium.

With reſpect to the anomalous ſymptoms, they were left entirely to nature.

During the whole courſe of the diſeaſe, the patient was permitted the free uſe of fruits, unleſs contraindicated by diarrhœa.

By adhering ſteadily to the above method, we are aſſured, that all the ſymptoms were alleviated,

viated, the progress of the diſeaſe cut ſhort, and the patient ſaved.

## VIII.

Antonii Brugmans *Magnetiſmus, ſeu de Affinitatibus Magneticis Obſervationes Academicæ.* 8vo. Lugduni Batavorum.

OUR author points out a new and convenient method, by which it may be eaſily known, whether any body, mineral, animal or vegetable, is attracted by the magnet, and thus, whether it contains iron or not. For, although different bodies are known to contain iron, both by the teſt of chemical analyſis, and by their affinity to the magnet; yet there are others, which, from chemiſtry, we know to be poſſeſſed of a martial principle, which, however, do not affect the moſt ſenſible magnetic needle.

Our author, in the preſent work, endeavours to diſcover the cauſe of this effect, and, if poſſible, to obviate it. Nor have his labours been unſucceſsful; for he has found, that different bodies, which ſeemed altogether deſtitute of iron, ſuch as vitriol of copper, cork, and filbert-

nuts,

nuts, and ſeveral others, are eaſily attracted by the magnet.

The whole of our author's method turns upon this, that the bodies, the martial principle of which we wiſh to aſcertain, ſhould be rendered as moveable as poſſible. For this purpoſe, he recommends to place the body to be examined, upon either end of a very moveable non-magnetic needle *, or, what is preferable, upon the ſurface of very pure quickſilver, or very limpid water; and, in this ſituation, to approach to it a ſtrong natural or artificial magnet of a parallelopiped form.

Quickſilver anſwers exceedingly well for ſolid bodies, ſuch as woods, ſtones, and thoſe minerals and metals which do not readily form an amalgam with it. But fluid bodies, and thoſe minerals which eaſily unite with quickſilver, and thus deſtroy its mobility, are either to be committed to water alone, or, if they are ſpecifically heavier

* We are prevented from deſcribing this needle by the want of a plate; but our author acknowledges, that it has frequently diſapppointed his expectations; on which account, it is neceſſary, on examining thoſe bodies which contain little iron, to have recourſe to quickſilver, or to water.

heavier than this fluid, or form mixtures with it, they are to be made to ſwim on its ſurface, placed upon a ſmall piece of paper, or on a thin lens of concave glaſs; upon which the approach of a good magnet, if the body contains iron, will not only diſcover it, but will frequently give it a conſtant polarity.

Many trials, which our author made with the greateſt care, ſhow the utility of this method. He found, that black earth, yellow, red, and green ochre, red fuller's-earth, tobacco-pipe clay, the clay of the Delft-ware, and all veſſels made of it, Engliſh fuller's-earth, the bolar earths, and all kinds of terra ſigillata, and other kinds of earth and ſand of a black, blue, or aſh colour, did not reſiſt the action of a good magnet. With the ſame event, he examined, not only that kind of clay which is uſed in making red bricks, but every other kind which acquires a yellow, blue, or other colour, in the fire. He found, that red bricks were capable of receiving a conſtant polarity. Whether that pure and white kind of argillaceous earth, of which the china of Saxony and Japan is made, would ſhow the ſame effect, he cannot be certain; for although china-veſſels are

are attracted, yet he informs us, that he has often met with bodies which were destitute of magnetic power, unless they had undergone the action of the fire.

Turfa, when fresh, has a remarkable affinity to the magnet. The longer, however, that this fossil is exposed to the open air, the more is this power diminished.

Indurated cement (*cæmentum*) becomes a true polar magnet. White vitriol, both natural and artificial, as also green and blue vitriol, lapis atramentarius, touchstone, stone of which millstones are made, lapis pumicis and lazuli, ardesia, lava, steatites and serpentini lapides, tourmalinus, succinum, several precious stones, as ruby, hyacinthus both of the East and West Indies, chrysolithus, smaragdus, granite, lapis nephriticus, turcosa, some jaspides and achates, as also several kinds of mica and asbestus, and the ores of iron, tin, copper, zinc, cobalt, and quicksilver, were moved sooner or later by the power of the magnet, according to the quantity of iron which they contained; and thus clearly proved the falsity of the common opinion, that the ores of iron or other metals, that stones and other minerals which contain iron, are not attracted by the magnet,

magnet, unleſs they have been previouſly calcined, either by themſelves, or with ſome inflammable body.

Our author proceeds to ſhow, that different animal and vegetable ſubſtances, of the martial principle of which doubts have been entertained, are readily attracted by the magnet, although they had not been prepared to ſhow this affinity, either by calcination, or any other operation whatever. Thus, ſponge, cork, Peruvian bark, filbert-nuts, almonds, the old bark of trees, cherry-ſtones, the woods of rhodium and mahogany, and ivory, gave evident marks of this magnetical affinity, when a ſmall piece of theſe bodies, about the ſize of a pepper-corn (for a rounded figure is preferable), was put on the ſurface of quickſilver, and a ſtrong magnet approached to them.

Other ſubſtances, again, ſhewed a magnetic power, when they were calcined, or reduced to aſhes, or when they were, according to Boerhaave's method, changed into a ſimple earth ſo called. Of this kind are the ſilices pyromachi, writing paper, ſoot, white wool, ſeveral herbs and fruits, the feathers of birds, fins of fiſh, ſeaſhells, animal bones and hair, blood and its ſe-

rum,

rum, fat, and the fleſh of animals; the calces of ſome metals, as of lead and zinc, diaphoretic antimony, red precipitate of mercury, turpeth mineral, *&c.*; for of all of theſe, a greater or ſmaller proportion adhered to the magnet.

By theſe experiments, our author thinks, we are enabled to correct the opinions of others reſpecting the producing and deſtroying the magnetic power in bodies, and they ſerve alſo as the foundation of new doctrines.

It is not in the leaſt to be wondered at, he obſerves, that Becher and Geoffroy procured an artificial iron from clay or argillaceous earth; for a conſiderable quantity of it enters into their compoſition, and is only ſeparated by a chemical proceſs. A certain colour of earths, ſuch as aſh or ochery coloured, is not a neceſſary mark of magnetic affinity; for ſometimes thoſe of a clayey or other colour, are obſerved to approach the magnet with greater force than others whoſe external appearance ſeemed to indicate a ſtronger affinity: yet our author found, by repeated trials, that the magnetic power decreaſed in proportion as the colour of bodies came nearer to perfect whiteneſs; ſo that ſome earths, and other bodies produced from them, are found,

which have no magnetic affinity at all. He thinks, that indurated cement ſhould be referred to the martial earths, on account of the great quantity of iron which it contains.

Our author could not deſtroy by any artifice the magnetic power of iron, which however almoſt all the chemiſts deny the croci of iron to poſſeſs; for whether he examined the ſolutions of this metal made in mineral or vegetable acids, or the crocus appoſitivus of Stahl, and other calces prepared either from ſolutions or with ſulphur, or iron itſelf expoſed for a length of time to the influence of the open air and moiſture, he always obſerved remarkable proofs of magnetiſm; and although this property was in ſome meaſure diminiſhed, yet this diminution depended upon the adherence of ſaline matter, and the magnetic power was fully reſtored when it was removed.

In the ſame manner, the ſeparation of phlogiſton from iron had no effect in deſtroying its magnetic power. The ſcoriæ of iron, that had been fuſed with nitre, and again ſeparated from it, were readily acted upon by the magnet.

Thus

Thus no art is capable of deſtroying or decompounding this metal, in ſuch a manner as to deprive it of its magnetic affinity.

Farther, although many ſubſtances, ſuch as the ſilex pyromachus, different earths, and others which we enumerated above, become magnetic by calcination; yet our author does not aſſent to the opinion of Mr Buffon, who thinks this magnetic power is produced by the fire; for as iron is found almoſt every where, even in the atmoſphere itſelf, he imagines, that the martial principle of thoſe bodies is only rendered more conſpicuous by the force of the fire.

Red coral, the external habit of which bears marks of an admixture of iron, even when prepared by calcination, did not ſhow any magnetic affinity: Hence our author infers, that the colour of mineral bodies depends, in ſome inſtances, upon the martial principle, and in others upon an inflammable matter alone.

The magnetic attraction, which ſome bodies ſhow after calcination inſtituted with inflammable ſubſtances, does not always depend upon the iron contained in the calcined body, but upon the martial principle of the inflammable matter. Thus, white chalk calcined *per ſe* has no

magnetic affinity; but when tallow is added during the calcination, the whole mafs is attracted by the magnet. Hence, in order to afcertain the prefence of iron in any body, it ought to be calcined without any addition whatever.

SECT.

## SECT. II.

### *Medical Obſervations.*

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### I.

*Obſervations on Regimen and Preparation under Inoculation, and on the Treatment of the Natural Small Pox, in the Weſt Indies. To which are added, Strictures on the Suttonian Practice; in a Letter to Dr* Andrew Duncan. *By* James Makittrick-Adair, *Fellow of the Royal College of Phyſicians at Edinburgh.*

*Antigua, July* 24. 1780.

SOME years ago, I had prepared for the preſs ſome obſervations on the Suttonian regimen and practice under inoculation; but

my ſudden and unexpected return to this colony, and the multiplicity of my avocations here, prevented even the recollection of my former intention, until the ſmall pox broke out in the metropolis of this iſland, when a general inoculation became neceſſary.

I take the liberty of tranſmitting to you a narrative of my practice, not only under inoculation, but in the natural ſmall pox, as concerted with, and, I believe, generally adopted by, your quondam pupil, and our mutual friend Dr Samuel Athill; and ſhall ſubjoin ſome ſtrictures on the Suttonian mode of treatment.

Should it be objected, that I have been anticipated in ſome of my ſtrictures, I anſwer, that allowing this to be true; yet, beſides ſome hints that are new, no author that I have read, has, on his own experience, ſo fully pointed out the bad effects which may reſult from the repellent plan. If, therefore, a due attention to the following remarks, ſhall tend to awaken the ſuſpicion of medical men, and thereby lead them to watch its effects, I ſhall not have publiſhed in vain.

## SECT. I. *Treatment under Inoculation.*

The unavoidable communication between the ſlaves in each plantation, made it neceſſary to inoculate, without regarding the circumſtance of pregnancy or chronic complaints: A few were inoculated by a ſaturated thread; but, in general, by a lancet loaded with the matter of a maturated puſtule.

The ordinary diet of the ſlaves being ſimple, little change was neceſſary; nor was I very rigid with reſpect to the regimen even of white patients.

In compliance with cuſtom, I purged twice before inoculation, and once between that and the eruptive fever; to all the healthy, above three months, purging pills of jalap, calomel and emetic tartar were given; for very young infants, magneſia, mercurius alkaliſatus and ipecacuanha, were directed; and ſuch as were conſtitutionally weak, or reduced by diſeaſe, were put upon the uſe of bark, bitters, animal food and wine.

I did not purge the mothers of ſucking infants, deeming the practice to be unneceſſary, uncertain and abſurd.

To avoid unneceſſary repetitions, I ſhall divide the ſmall pox into four ſtages; the *febrile*, *eruptive*, *ſuppuratory*, and that of *incruſtation*.

Though the writers on the ſmall pox, in general, endeavour to aſſign a certain number of days for the commencement and termination of each of thoſe ſtages; yet I have found that a variety of circumſtances may either precipitate or retard them.

About three days before I expected the eruptive fever, I directed, for all but infants at the breaſt, a ſolution of emetic tartar, acidulated with vitriolic acid, adding as much laudanum as ſhould prevent ſevere nauſea and vomiting: To children above ſix months, it was given without the acid; but few under this age took it, except ſuch as from diſturbed ſleep, twitchings and ſtartings, ſeemed to be threatened with convulſions; and, in theſe caſes, I generally preferred a tincture of ipecacuanha with laudanum.

It was a general direction, that warm water ſhould be kept in readineſs, for the immediate immerſion of ſuch as were threatened with convulſions; and a doſe of the above medicine was directed

directed to be given, and repeated every hour, or two hours, until the ſpaſms ceaſed.

This diaphoretic, which generally ſweated, and ſometimes vomited, was continued till the eruption appeared; after which period, no medicine was given, unleſs a profuſe eruption, or ſome other circumſtance, demanded it.

When the puſtules were nearly dried on the face, I purged twice or thrice with the preparatory medicines, but in a larger doſe.

## SECT. II. *Natural Small Pox.*

*Febrile Stage.*] As ſoon as I ſuſpected the fever to be variolous, I gave to adults about ſix grains of calomel, and one grain of emetic tartar; and the operation being finiſhed, I continued the medicine in half that quantity, every four, ſix or eight hours, until I could pretty exactly determine the quantum of the eruption: If it was likely to be copious, I continued the medicine till the commencement of the third ſtage, otherwiſe I deſiſted: If the patient was conſiderably vomited or purged by it, I ordered an opiate at night, but not otherwiſe. To all children above ſix months, calomel and ipecacuanha

cacuanha were given; to infants under that age, magnesia, ipecacuanha and mercurius alkalisatus: To the infirm of any age, bark and mercurius alkalisatus; using the precautions enumerated above, to obviate or remove convulsions. In one case, the patient was bled, on account of considerable pains, anxiety and febrile heat.

*Eruptive Stage.*] If the eruption promised to be moderate, tepid drinks only were prescribed, and the chamber kept cool. If very costive, a glyster, or gentle aperient were given. I have already related the method of treatment, when I suspected the eruption would be profuse; and whether before or during the eruption, if the mercurial medicine operated briskly, an opiate was given at night, with great advantage; the patient was exposed to a free current of air, and permitted to drink cold water, if desired.

*Stage of Suppuration.*] This stage, I believe, commences very soon after the eruption, or inflammatory effusion, and proceeds successively in the different parts of the body, in proportion as the pustules appear and fill, until they have attained their full size, and acquire that yellowness of the apices, which is rarely observed, however, except in the distinct small pox: A

proof

proof that in the confluent ſmall pox, a genuine ſuppuration does not take place. Hence it appears, that the ſtage of ſuppuration really commences and continues longer than is generally believed; and indeed the three ſtages run ſo inſenſibly into each other, that their periods cannot be aſcertained.

If the puſtules were few, warm drinks were preferred to cold, and even the gentleſt aperient avoided. If the eruption was copious, and the mercurial had been properly employed in the former ſtages, it was now diſcontinued, and only an opiate given at night, provided the patient was very ſore or reſtleſs; and even repeated at midnight, if the firſt doſe had not a proper effect. But when the evacuating medicines had either been omitted in the former ſtages, or uſed too ſparingly; or when the eruption had been premature, and very precipitate, and the inflammatory ſuffuſion in the intervals of the puſtules was conſiderable, eſpecially if of a dark red colour; the mercurial was uſed through this ſtage, but in ſuch ſmall doſes as not to hazard a profuſe purging.

*Stage of Incruſtation.*] This ſtage is ſuppoſed to commence from the time the apices of the puſtules

pustules in the face begin to be discoloured and hardened: But this is not strictly true; for at this time, the process of maturation is really going on in the body and extremities: A more certain and important mark of its commencement is a sensible diminution of the swelling of the face; which, though it takes place pretty regularly about the eleventh day in the distinct small pox, is sometimes later in the confluent. The commencement of the secondary fever depends chiefly on the detumescence of the face; but in several cases it appeared earlier; the evening exacerbation becoming more gradually severe, and the morning remission less distinct, except in a patient who died on the nineteenth day; for in this case it came on with great rigour, and the first hot fit destroyed him.

The treatment under this stage of danger was regulated by circumstances. If the secondary fever was slight, the patient was kept cool and quiet, and the belly gently soluble.

But if the secondary fever came on with any degree of severity, I again had recourse to the mercurial evacuants, blistered the back, or, more frequently, the scrobiculus cordis; and if the patient was restless at night, the opiate was given,

given, and generally washed down with weak warm punch.

The relics of the disease were purged off by jalap, calomel and tartar emetic, given earlier than under inoculation.

Soft vegetable drinks, and sometimes weak broths, were given through the disease.

I lost two inoculated patients; one, an infant, whose mother having died about a month before, of a puerperal fever, it was neglected by the nurse; the other, an infant of ten weeks old; of the confluent small pox, contracted, I believe, before inoculation.

Though a considerable proportion died of the natural small pox during this epidemic, two only died under my care; one, an old man of seventy, neglected in the first stages; and a boy who had long laboured under diarrhœa: He had been inoculated, but without effect: He had very few pustules.

## SECT. III.

Before I proceed to the remarks on the preceding sections, I shall assign some reasons for the present publication.

In

In the year 1766, when I settled at Andover in Hants, I found, that in the town and neighbourhood there were several inoculators, who either had been, or were then, partners of the Suttons. I was led chiefly by curiosity, to enquire into the mode and effects of this novel practice; and from a strong predilection for the cooling regimen in inflammatory and putrid fevers, I considered it as a valuable extension of Sydenham's plan; and, in the only case of inoculation in which I was at that time consulted, I adopted the reducing regimen with all the rigour of a Suttonian.

Soon after, several patients, chiefly women, applied to me for advice. Almost all their cases were complicated and anomalous; some patients were sallow and cachectic, with irregularity or obstruction of the menstrua; others, apparently athletic, were become hysterical or hypochondriacal; some laboured under irregular fevers, with perversion of all the secretions and excretions; others were manifestly hectic, with the symptoms of phthisis pulmonalis.

Of those several died; others, tired out with my unavailing efforts to relieve them, applied to some other medical men, and perhaps without success.

fuccefs. Out of more than twenty cafes, I fhall felect the following: Thofe of the farmer and his wife firft excited my fufpicion concerning the caufe.

By defire of the late Sir John Elwill, I vifited a farmer and his wife, his tenants at Dean near Salifbury.

They had been inoculated twice; but though they remained fix weeks in the inoculating houfe, they had no eruption.

They informed me, they had both been remarkably healthy before inoculation, but had been ill ever fince.

I found the farmer perpetually tortured with pains in his bowels, with conftipation, and hectic fever: He was relieved chiefly by caftor oil, and apozems of linfeed and fal diureticus.

The wife, a corpulent athletic woman, with a train of hypochondriacal fymptoms, which feemed to depend on catamenial obftructions, was, at times, fubject to fevere hyfterical paroxyfms. She was relieved, as far as depended on a reftitution of the menftrua, by extract of hemlock and the aloetic pill; but her nerves continued very irritable long after I left her.

A farmer's daughter in a neighbouring village consulted me: I found her in the last stage of a consumption, and therefore attempted palliation only. The patient and her parents assured me, that, before inoculation, she had been strong, florid and healthy, and considered her as a martyr to the new practice.

A female, servant to an old bachelor my neighbour, soon after being inoculated, in which the pustules were few, was seized with convulsions. They seemed to partake more of the nature of epilepsy than of hysteria. Their returns were frequent and severe; and, in the intervals, she complained of an heavy constant pain at the scrobiculus cordis. All the means I could devise for her relief were unavailing, and she died at the end of some months of an ascites. This woman dated the commencement of her illness from the time of her being inoculated.

But as the pursuit of truth is my sole aim, I acknowledge, that several diseases were attributed to the relics of small pox, long before inoculation was practised in Europe; but I believe the disease was rarely productive of complaints, unless where the eruption was much more copious than under the present mode of inocula-

tion;

tion; and I ſhall hereafter endeavour to explain, how a defect, as well as an exceſs, of eruption, may injure the future health of the patient. It cannot be doubted, that the Suttonian mode of inoculation has rendered the immediate danger much leſs than under any former mode; but I am perſuaded, that, to render it more ſafe in every reſpect, it is neceſſary, in general, to be much more moderate in the uſe of the reducing and repellent plan, and, in ſome caſes, totally to deſert it.

This leads me to take notice of a circumſtance which merits our moſt ſerious attention, ſo far as regards the probable conſequences.

The Suttons having remarked, that their plan always leſſened, and often totally prevented eruption, they were induced, not only to adopt it indiſcriminately, but often to carry it to exceſs; becauſe, by a quick rotation of patients, their profits were conſiderably increaſed. This method of treatment was alſo very agreeable to the patients; they were gratified by the proſpect of being ſoon relieved from a rigid diſcipline; and the females were aſſured of their beauty being unimpaired.

Baron Dimſdale's candid and judicious publication did not tend ſo much to regulate and modify this practice, as to apply the principles of it to the treatment of the natural ſmall pox.

From ſome caſes which have occurred to me, in which Dr Dimſdale's plan was adopted, I have been led to wiſh, that, well qualified as he is, he had been more explicit in pointing out thoſe circumſtances under which a mitigation of the general regimen would be neceſſary; and indeed, that he had been leſs implicit in adopting that plan in its utmoſt extent; becauſe I am perſuaded that it is unneceſſary, and has been in ſome caſes unſafe.

More than twelve years ago, the late Dr Kirkpatrick, author of a treatiſe on inoculation, was of the ſame opinion: Dr Gatti, who inoculated at Paris with the utmoſt ſucceſs, reprobates, in the ſtrongeſt terms, all preparation whatſoever; and attached as I am to mercurials and ſudorifics, as preparatory to inoculation, I ſhould deem my patient more ſafe without any preparation whatſoever, than under that adopted by Dr Dimſdale: But medical men muſt often ſubmit to modes of practice, merely becauſe they are in faſhion.

Before

Before we proceed, it may be neceffary to enquire into the probable caufes of thofe difeafes, which have been confidered as confequent of imperfect crifis of the natural and inoculated fmall pox, that we may be enabled to avoid, obviate, or remove them.

1. *In the natural fmall pox.*] *Firft*, The affimulation of fuch a quantity of variolofe matter, that part, not being depofited on the furface, is retained in the habit. 2*dly*, The whole being depofited, a part falls back again on the habit, and is not properly difcharged, either from general weaknefs, an unfitnefs of the organs to feparate it, or a neglect of proper evacuants.

2. *Under inoculation.*] *Firft*, Debility of the conftitution, either natural, or from improper regimen; by which the matter is not duly depofited on the furface. 2*dly*, The efforts of the conftitution being fo difturbed during the procefs of eruption and maturation, either by refifting the determination to the furface by cold, *&c.* or by promoting counter-determinations, efpecially to the inteftinal canal, and thereby preventing the natural crifis of the difeafe.

That much mifchief may arife from interrupting critical efforts in this difeafe, is evident, *firft*,

From the alarming ſymptoms, nervous and febrile, often produced before the eruption. 2*dly*, The dangerous and fatal commotions excited, when the eruption is imperfect, or totally interrupted. 3*dly*, The exceſſive and often fatal diſturbances produced by part of the virus being abſorbed, and ſtimulating the internal organs. 4*thly*, The chronic diſeaſes produced by the relics of diſeaſe.

If, therefore, we conſider the ſmall pox as a diſeaſe, whoſe natural and neceſſary criſis is by a *complete* depoſition on the ſurface, the motives and indications for inoculation and concomitant treatment muſt be,

*Firſt*, So to prepare the body, that the varioloſe matter generated in the habit ſhall be mild in quality, and moderate in quantity.

2*dly*, To prevent any violent or dangerous commotions, or changes, being produced in the ſyſtem, during the ſeparation and expulſion of the variolous matter.

3*dly*, To render the depoſition of this matter complete and ſafe; and,

4*thly*, To prevent the future health from being injured by a return of the virus into the habit.

SECT.

SECT. IV. *Remarks on the preceding Sections.*

The means neceſſary for ſatisfying the preceding indications, may be conſidered under the heads of *diet*, *drinks*, *air*, and *medicine*; and, under thoſe heads, ſome obſervations on the treatment of the natural ſmall pox will be ſubjoined.

1. *Diet.*] Abſtinence from the uſe of ſtimulating food and ſauces, and a moderate uſe even of bland nouriſhment, to prevent repletion, have a tendency to leſſen the inflammatory diatheſis, and weaken the propulſive powers of the heart; and I have been told, that ſome of Sutton's partners pretended, that they could ſo regulate the regimen, as to aſcertain the number of puſtules; aſſerting, that even a ſingle meal of animal food has produced a freſh crop of puſtules. This I know, that ſeveral of Sutton's patients, by returning too quickly to a full diet, have had a freſh crop of puſtules, or impoſthumation. Theſe circumſtances afford a proof, that the regimen has been too rigid, and may ſometimes be injurious, as appears even from ſome of Baron Dimſdale's caſes.

Whatever other evils may ariſe from this plan, there is one, of which, I believe, it is fre-

quently productive, *viz.* too ſudden repletion, from too quick a tranſition to full diet, perhaps often exceſs in proportion to the former reſtraint. To this probably may be owing ſome of the diſeaſes attributed to retention of the virus.

Some years ago, the ſmall-pox was introduced into this iſland by a ſhip from the coaſt of Africa. Several of the perſons inoculated at that time, were ſeized with alarming ſymptoms; the eruptions had not their uſual aſpect; ſeveral died; ſome, inſtead of eruptions, had immenſe ſwellings of the inoculated arms, and ill-conditioned impoſthumations and ulcers. Theſe untoward events deterred ſome of the practitioners from farther inoculation at that time, from a ſuſpicion that there was a degree of malignity in the virus. Of thoſe who had then been repeatedly inoculated, without eruption, ſome were ſeized in the natural way during the late epidemic. I will not deny that there might be ſomething unfavourable in the ſtate of the air; but, from ſome circumſtances that have occurred lately, I am inclined to ſuſpect, that the reducing plan being carried too far, was a principal cauſe of thoſe untoward accidents; for I know experimentally,

rimentally, that perfons in hot climates will not bear the repellent treatment to a degree which may be inoffenfive in Europe. Another remark arifes from the foregoing fact, that thefe and other inftances fhew, that, by reducing the patient too much, we may abfolutely incapacitate him for receiving the infection fo long as he remains in that ftate; and yet, under a different degree of health, he may be neverthelefs fufceptible of it: A memorable inftance of this fort happened at Marlborough in Wiltfhire, which, without my interpofition, would have produced a law-fuit.

I fhall finifh my remarks on this head, by obferving, that, when the eruptive fever was fevere, and therefore threatened a profufion of puftules, I confined my patient to a liquid vegetable diet. In a few cafes, however, I directed broths, and a little wine, when the eruption feemed to be tardy, and the puftules did not fill properly, owing to conftitutional debility: But I am perfuaded, cafes of this kind occur more rarely than the nurfes fuppofe; and it was with the utmoft difficulty I could reftrain them from the ufe of cordials, where the apparent oppreffion of the fpirits, and depreffion of the puftules,

were really the effects of over fulneſs, and exceſs of fever. Nurſes in general are ſo ſtrongly under the influence of this prejudice, that the utmoſt vigilance is not ſufficient to prevent their purſuing this deſtructive practice.

2. *Drinks.*] Sutton's punch, as he called it, may be of uſe in the confluent ſmall pox, as ſedative and antiſeptic; but I never had occaſion to uſe it: Tamarind beverage was ſometimes given as an eccoprotic. In the laſt ſtage, warm ſour punch, negus, or wine-whey, were of uſe in the evening, to waſh down the opiate, eſpecially after the operation of a purge.

3. *Air.*] In no circumſtance has the treatment of the ſmall pox been ſo much improved, as by a free perflation of the ſick chamber; and we may juſtly attribute the mortality of the diſeaſe formerly, to confinement of the patient to hot unventilated chambers, aſſiſted by the liberal uſe of cordials. The public is much indebted to Baron Dimſdale, for introducing the liberal uſe of cold air and cold drinks in the natural ſmall pox; but are we therefore to conclude, that expoſure to extremely cold air is neceſſary under inoculation? That it will extinguiſh febrile heat, I have had ſufficient experience; but if there is

no

no riſk of the fever running beyond that degree which is neceſſary for a moderate and complete eruption, to what purpoſe do we apply this powerful ſedative? If it were a neceſſary part of the regimen, inoculation would not ſucceed ſo well in the Torrid Zone, where this advantage cannot be procured: Indeed I am fully convinced, that the benefit derived from expoſure to the air, does not ariſe ſo much from the degree of cold, as from a conſtant change of the atmoſphere, immediately ſurrounding the patient.

It is however peculiarly incumbent on a medical writer, candidly to produce every fact or argument that may tend to invalidate his own opinion and experience; and under this idea, I think it juſt to obſerve, that Governor Hollwell, in his account of inoculation in the Eaſt Indies, tells us, that from the time of inciſion, to the commencement of fever, cold water was poured on the patient morning and evening; but deſiſted from until the eruption was complete; and continued after that time, until the puſtules dropped. This practice ſeems, *prima facie*, to be ſimilar to the repellent plan of Dr Dimſdale, and therefore to militate againſt my arguments.

But

But I would remark, that the regimen was lefs rigid. It does not appear that purgatives were ufed. The temperature of cold water in hot climates is not many degrees different from that of the atmofphere. The application of cold, even in this degree, was omitted during the fever and eruption, and therefore could have very little effect as a repellent. And as the puftules were all opened, and re-abforption leffened or prevented, the effufion of the water in the laft ftage had no other effect than that of fimple ablution.

*Medicine.*] Under this head I fhall make fome remarks on *purgatives*, *fudorifics*, *febrifuges*, *fedatives* and *ftimuli*.

1. *Purgatives.*] It fhould feem, that the Suttonians rely much on the effect of purgatives in leffening the eruption; and in compliance with the cuftom of others, I ufed aperients as preparatory; though, when I practifed in this country more than thirty years ago, I never gave a preparatory purge, unlefs when I fufpected worms; but for fome time before inoculation, and in the interval between that and the eruption, kept my patients on a courfe of mild mercurial alteratives; yet our fuccefs then was much greater

greater than under the late epidemic; for though more than ten thoufand were inoculated, I do not recollect that in the whole ifland more than two perfons died under inoculation: Our fuccefs in the treatment of the fmall pox in the natural way, was then much lefs than under the late epidemic; a proof that the Suttonian practice is more favourable under the natural than the inoculated fmall pox.

Dr Sydenham, and moft of the authors fince his time, feem to have been exceedingly averfe from promoting any kind of evacuation during the ftages of eruption and maturation; left they fhould interfere with the eruption, fuppuration, falivation, and fucceffive tumefaction of the face and hands. And indeed, though Drs Freind and Mead had often fnatched their patients from deftruction, by purging in the fecondary fever, yet they remained fo much under the influence of prejudice, as not to fee the propriety of preventing, rather than removing thofe dangerous fymptoms, by early purging in the firft ftages.

The late Dr Simpfon of St Andrews, feems to have hinted at the advantage of this practice; but we certainly owe to Dr Dimfdale the judicious application of this and the other parts of the

the sedative plan, to the cure of the natural small pox; and I certainly saved several of my late patients by adopting his practice, when the eruption was copious; though when the pustules were few, whether in the natural or artificial small pox, I deemed purging to be, *at least*, unnecessary; and therefore purged some days later after the incrustation than is commonly practised.

Though I consider the application of the repellent plan to the treatment of the confluent small pox, as a most valuable acquisition to medical practice; yet, from some cases which fell under my care in England, and under the late epidemic, I apprehend that it is not totally free from inconvenience and danger, though certainly much overbalanced by the advantages that attend it. The operation of purgatives cannot always be so regulated as not to exceed; and cold, by acting too powerfully on the surface, may either repress eruption too much, or repel the matter too suddenly and copiously, and thereby produce some distressing symptoms, if it does not find a ready outlet by the intestines or kidneys.

In

In all the cafes of natural fmall pox related by Dr Dimfdale, fo far as I recollect, he had an opportunity of putting his plan in execution either before, or immediately after the commencement of eruption; but it does not appear what fteps he would have taken, had he been called when the puftules were in a ftate of maturation.

I did not, in confequence of a miftake, fee an old man, until the ftage of fuppuration was pretty far advanced. The pock was highly confluent, and his fpitting was copious. About the twelfth day he died, a few hours after being feized with rigor and dyfpnœa.

Reflecting on this cafe, and on the motives which have induced Phyficians to avoid purging and the application of cold at this period of the difeafe, I fufpected that falivation and diarrhœa are fo far from being effential concomitants of the confluent fmall pox, that they are merely adventitious, and confequent only of the excefs of the variolous matter, all of which could not be depofited on the furface; and I was afterwards confirmed in this opinion, by remarking, that fuch as were purged early, had very little

falival

falival difcharge, and this merely from the irritation of fome puftules in the throat.

When I had the management of my patients from the commencement of the eruptive fever, I had time to regulate that and the eruption; fo that very little was neceffary to be done during maturation, which I did not think it right wantonly to interfere with, being tolerably affured that I had done enough to fecure my patient from the effects of the fecondary fever.

In a very few cafes, however, I did not fee my patients till the eruption was complete, and therefore ventured to put the repellent plan in practice even at this late period, and with fuccefs, the fecondary fever being moderate, though perhaps lefs fo than if purging and cold air had been applied earlier. I was indeed lefs averfe from this trial, becaufe, as I have already remarked, it is difficult to determine with precifion, when the ftage of maturation commences, or terminates. The cafes were, however, much too few to eftablifh a rule of practice; and it yet remains to be determined, whether it would be more eligible to purge during the maturation, or follow the practice of Mead and Freind,

and

and begin the courſe of purging early in the next ſtage.

I have remarked (Sect. II.) that one circumſtance which to me indicated purging, was inflammatory ſuffuſion and tenſion round the baſes in thoſe parts of the body where the puſtules run leaſt into each other. I purged under thoſe circumſtances, not ſo much becauſe I deemed this inflammation to be a dangerous ſymptom, as from an aſſurance, founded in experience, that with ſuch an aſpect of the pock, there was leſs danger of injuring the patient by this evacuation, than when the interſtices are pale and flaccid. In the negroes, the colour of the ſkin prevents our remarking the degree of inflammatory ſuffuſion ſo diſtinctly as in white perſons; and yet thoſe who attend carefully, may partly from the aſpect, but chiefly from the degree of tenſion under the fingers, determine the degree of ſuffuſion. The increaſe of the evening paroxyſm is perhaps ſtill a more certain indication, as it portends a ſevere attack of ſecondary fever, unleſs the fever of maturation is ſymptomatic of pain, and guided by the opiate.

2. *Sudorifics.*] Medical men ought to be exceedingly cautious in drawing their inferences from

from the apparent effects of any particular mode of practice. The Suttonians attribute their success to the repellent plan; Dr Gatti succeeded equally well without any preparation, and Mr Clarke, an ingenious Surgeon at Castle-carey in Somersetshire, sweated his patients every night, between the incision and eruption, and with the greatest success: The Russians also have rendered the natural small pox more mild, by sending the patients to the bagnios, where they sweat profusely; and Sydenham has observed, that in the distinct small pox, the patients had a great propensity to sweat from the commencement of eruption to the end of maturation. May not this disposition of the skin have contributed to render the eruption less copious, by carrying off a part of the assimulated matter? Firmly believing, that, by this practice, I should at least endanger the future health of my patients less than by the Suttonian practice, I promoted a gentle sweat every night before the eruption. To the emetic tartar or ipecacuanha, I joined a small proportion of opium. By this addition, I rendered the sudorific effect more certain; and, at the same time, I believed I should quiet that perturbation of the system, which in younger

subjects

ſubjects produces convulſions, and in all tends to render the eruption too tardy from ſpaſm, or too precipitate from exceſs of determination; and, under both thoſe extremes, incomplete and dangerous, if the quantity of varioloſe matter happens to be great.

3. *Febrifuges.*] Whether the active antimonials and ipecacuanha have any power of leſſening or preventing the eruptive and ſecondary fevers, by anticipation, I ſhall not determine; but in other fevers they are juſtly deemed febrifuges.

Though the doctrine of ſpecific powers has (perhaps too haſtily) been exploded by many of the moderns; yet I am of opinion, that there is in mercury ſome quality by which it corrects the varioloſe virus. It certainly conſtituted a part of Sutton's noſtrum, and Baron Dimſdale has recommended it.

In the remittent and topical inflammatory fevers of this climate, mercury adds much to the efficacy of the active antimonials, and of ipecacuanha; and in one or two caſes of natural ſmall pox, where it affected the mouth a little, the ſecondary fever ſeemed to be more moderate than might otherwiſe be expected from the degree of eruption: I uſed the mercury and antimonial, or ipe-

cacuanha, in larger dofes than it is prefcribed by Baron Dimfdale, and it generally operated both upward and downward; fo that it was rarely neceffary to fubjoin purgatives.

4. *Sedatives.*] Such of this clafs as are fuppofed to weaken the force of the heart, and leffen the impetus of the circulation, are enumerated under the preceding heads, though the following, under certain circumftances, may be faid to have a fimilar effect; yet their more immediate operation is on the nervous fyftem.

*Warm Bath.*] To fuch as are properly converfant with medical philofophy, there can be no difficulty in accounting why cold and warmth, qualities apparently oppofite, are neverthelefs both fedatives.

White children generally ufed the warm pediluvium for fome nights before the period of eruption; but the number of the negro patients was fo great as to render it impracticable, at leaft very inconvenient: One only of each had convulfions. In the natural fmall pox, I directed it as foon as the nature of the difeafe was known; and I am perfuaded, that, many years ago, an entire warm bath was very beneficial to fome of my young patients, efpecially when the eruption

eruption was tardy, and the pock did not fill kindly.

How does this fact correspond with Governor Holwell's observation? "I have (says he) "been an eye-witness to the marvellous effect "of the external application of three or four "collons of cold water (each containing about "two gallons) where the pustules have sunk, "and the patient appeared to be in imminent "danger, which never failed of filling the pock, "as it were, by enchantment."

Before I proceed, I would remark, that imperfect narratives of medical cases have contributed very much to retard the improvement of the science. A judicious Physician would, after reciting the foregoing fact, have taken notice of the habit of body, the state of the pulse, the degree of heat, and other symptoms; he would also have related, whether any internal medicines were given, and, if any, whether of the cooling or cordial kind.

It is by an accurate observation of all the nice discriminating circumstances, strict analogical reasoning upon these, and a judicious accommodation of means to the end, that a Physician is distinguished from an unqualified observer,

whether he be a philosopher or a quack; and it is with concern I remark, that the observations and reasonings even of the most respectable philosophers Boyle and Berkley, when they enter on medical disquisition, savour more of empiricism than of sound medical philosophy.

It may reasonably be doubted, whether either the Governor or Bramin inoculators, were competent judges of the state of the eruption; presuming them to be equally skilful as an old English nurse. Our nurses certainly commit egregious mistakes in this respect; and, under the idea of the flattening of the pustules, have formerly done infinite mischief to the poor patients.

But, admitting the fact in its utmost extent, standing singly as it does, can any medical man believe, that the affusion of some gallons of cold water, could alone, and in every case, promote eruptions, and fill the pock when flattened and sunk? By no means; for, beside irrefragable proofs of the contrary, the Bramins themselves seem to have been aware, that the application of cold water tended to impede eruption; and therefore, as I remarked before, they desisted from the use of it, in ordinary cases, during the febrile and eruptive stages.

Some

Some uſeful information, however, may be derived from enquiring into the circumſtances under which the application of cold in this mode may be uſeful, unavailing, or injurious.

From Sir John Chardin's account of the treatment of the Gombroon fever, which ſeems to have been a malignant remittent, it appears, that, whilſt cold roſe-water was poured on the patient, the moſt heating cordials were given; and it is not improbable but the practice was ſimilar under a ſuppoſed depreſſion of the variolous puſtules; as the vicinity of India to Perſia may have favoured a ſimilarity of medical ideas and practice. Be this as it may, it will readily be admitted, that the application of cold, as antiphlogiſtic and antiſeptic, may be beneficial, eſpecially in the young and plethoric, when a *temporary* depreſſion of the pulſe, ſtrength and ſpirits, is produced by exceſſive febrile heat, generated by the ungrateful ſtimulus of exanthematous virus on the internal organs.

But when the eruption, or filling of the pock, are impeded by a *permanent* conſtitutional debility; in ſuch caſes, the heat and pulſe being below par, the application of cold alone would at leaſt be unavailing, without the aſſiſtance of in-

ternal ſtimulants; but we may venture to ſay, it would in general be injurious, and that a hot bath would, in ſuch a caſe, as certainly be uſeful.

*Opium.*] I have already made ſome remarks on the uſe of the anodyne diaphoretic under inoculation. In the natural ſmall pox, opiates and purges, given alternately, rendered the uſe of each more ſafe; for, as the former were apt to increaſe fever, by locking up the groſſer ſecretions, ſo, when purges lowered the patient, opium was an excellent cordial.

*Stimulants:—Cordials.*] Under this head I bring all ſuch remedies as increaſe the power of the heart, as wine, bark, bitters, *&c.* They are not only admiſſible as preparatives for inoculation, when the patient is weak and low, but are equally uſeful in conſtitutional debility under the natural ſmall pox, though, in the latter caſe, they ought to be uſed with great caution. Sydenham recommends a few ſpoonfuls of ſack in the decline of the diſeaſe; and I have found punch or wine-whey very uſeful, not only at this period, but even in the more early ſtages, after purges.

*Bliſters*

*Bliſters and Sinapiſms.*] There were formerly uſed very frequently, either before the commencement of the ſecondary fever, to obviate bad ſymptoms, or after the fever was formed, with a view to compenſate for the defect of ſalivation, or when the ſwellings of the hands and feet were not ſufficient; and ſome years ago, Dr Cloſs, an ingenious German Phyſician, recommended the application of bliſters on the approach of the eruptive fever; and that they ſhould be kept open through the ſeveral ſtages of the diſeaſe. But, under the preſent mode of treating the ſmall pox, bliſters are not ſo neceſſary, more certain and beneficial evacuations being ſubſtituted.

I ſhall conclude with the following inferences, which are, I think, fairly deducible from the premiſes.

1*ſt*, The ſmall pox being a diſeaſe, the natural criſis of which is by a cutaneous eruption, it is not warrantable to prevent a depoſition of the whole matter on the ſurface, unleſs the quantity thereof ſhall be ſo great as to endanger the life of the patient.

2*dly*, Many dangerous and fatal diſeaſes have ariſen from the imperfect depoſition of this matter, or from its retroceſſion.

*3dly*, Inoculation having been inſtituted to leſſen, or totally prevent the hazard of deformity and danger, whatever regimen is found from experience to anſwer thoſe valuable purpoſes, ought to be ſteadily purſued; but all beyond this becomes unneceſſary, perhaps injurious.

*4thly*, Repeated experience ſhews, that very little, if any, preparation is neceſſary, to render the inoculated ſmall pox ſafe and moderate; therefore, the rigid regimen of the Suttonians is unneceſſary, and often depreſſes the powers of the conſtitution too much below the healthy ſtandard.

*5thly*, No general mode of preparation can be equally ſafe and beneficial; the habit of body, the former modes of life, and the preſent ſtate of health, are therefore to regulate the manner and degree of preparation.

*6thly*, In the treatment of diſeaſes, every other conſideration muſt yield to that of the immediate ſafety of the patient; therefore the reducing and repellent plan, though generally unneceſſary under inoculation, though not without its hazards and inconveniencies, even in the natural ſmall pox, ought, nevertheleſs, to be

very frequently adopted, as tending, beyond every other method hitherto known, to leſſen the immediate danger ariſing from a copious eruption.

*Facts and Obſervations on different Medical Subjects, by Mr* R. M'Cauſland, *Surgeon to the King's, or 8th Regiment of Foot.*

IN 1775, the year after I arrived at Niagara, the number of intermittents amongſt the troops, ſeamen, and perſons dependent on the poſt, was ſo large, that I ſoon found that the quantity of Peruvian bark with which I was provided, would be totally inadequate to the demands. As it was impoſſible then to procure any more, it became abſolutely neceſſary to fall on ſome other method of treatment. One of the firſt remedies which I turned my thoughts towards, was emetic tartar; and the advantages which I experienced from it, ſoon encouraged me to make its uſe more general. Since that time, I have given it with ſucceſs, in a great number of intermittents: I am confident I ſpeak conſiderably within bounds, when I ſay, that from the year 1775, to 1781, this remedy alone has

has removed three hundred agues. In a great many of theſe caſes, it was not in my power to keep any regiſter: I cannot, therefore, give an exact account of the reſult of the whole number of caſes in which the tartar emetic alone has been exhibited; but in thoſe where I have been able to keep an account of the treatment and ſucceſs, I have very conſtantly found, that, upon an average, it ſucceeded in two caſes in three. In 1780, during the three months of Auguſt, September, and October, I had upwards of two hundred intermittents under my care: I here give the reſult of ſeveral of theſe caſes, with this neceſſary remark, that upon the preſent ſubject, as well as many others, I have been prevented from puſhing my enquiries as far as they might have been, by the want of medicines; an inconvenience which the remoteneſs of this ſituation, and the uncertainty of navigation during a time of war, have always ſubjected me to. With regard to the method of exhibiting the tartar emetic, I found (as will appear by the tables) that the form of pills ſucceeded better than ſolution; and for this purpoſe, nothing further than a few drops of ſyrup, or a ſmall quantity of elect. lenitiv. was employed.

employed. I regulated the dofe in fuch a manner, that at firft fome evacuation, by vomiting or purging, might be brought on; afterwards, it was fufficient to excite naufea, which fometimes ended in a fingle difcharge of the contents of the ftomach, or an extraordinary ftool or two. I never gave it before breakfaft, as it would then have been more liable to excite vomiting; nor did I ever give it till many hours after dinner, left the body fhould have been deprived of its neceffary nourifhment. I generally, therefore, gave the firft dofe two hours before dinner, and the fecond dofe on going to bed, except when circumftances refpecting the recurrence of the paroxyfm rendered fome deviation neceffary. From the fmall quantity of tartar emetic I had, I was feldom able to give above two dofes in twenty-four hours; but I, am apt to believe, that a third might be added with advantage: The time I have generally pitched upon for it, was about two or three in the morning, or as near that time as the patient might happen to awake.

No.

No. I.

*Tartar Emetic in Pills.*

| | *Cured.* | | | | *Not Cured.* | | |
|---|---|---|---|---|---|---|---|
| | One Grain. | Various Quantities. | Half a Gr. | Number of days used. | One Grain. | Various Quantities. | Half a Gr. |
| | 16 | 3 | 13 | 5 | 1 | 1 | 4 |
| | 6 | 4 | 1 | 10 | 2 | 2 | 2 |
| | 3 | 1 | 2 | 15 | 2 | 2 | 5 |
| | 1 | 1 | | 20 | 1 | 2 | 2 |
| | 26 | 9 | 16 | | 6 | 7 | 13 |
| Total cured, | | | 51 | Total not cured, | | | 26 |
| Relapsed, | | | 15 | | | | |
| Total of the exact number of days cure, | | | 286 | | | | |
| Average of the number of days cure, | | | $5\frac{1}{2}$ | | | | |

*Tartar Emetic in Solution.*

| | *Cured.* | | | | *Not Cured.* | | |
|---|---|---|---|---|---|---|---|
| | One Grain. | Various Quantities. | Half a Gr. | Number of days used. | One Grain. | Various Quantities. | Half a Gr. |
| | 8 | 6 | 5 | 5 | | 6 | |
| | 2 | 10 | | 10 | | 6 | |
| | | 1 | | 15 | | 7 | |
| | | 1 | | 20 | 1 | 3 | |
| | 10 | 18 | 5 | | 1 | 22 | |
| Total cured, | | | 33 | Total not cured, | | | 23 |
| Relapsed, | | | 4 | | | | |
| Total of the exact number of days cure, | | | 174 | | | | |
| Average of the number of days cure, | | | $5\frac{1}{4}$ | | | | |

The

*Explanation of Table* No. I.

The quantity of tartar emetic uſed for a doſe is placed at the head of each column, and refers perpendicularly. The mark of various quantities ſignifies, that in thoſe caſes ſometimes one grain, ſometimes half a grain, or leſs, was taken. The figure marking the number of days that the tartar emetic was uſed, refers horizontally. The firſt horizontal column contains thoſe who took the remedy five days, or under; of theſe were cured ſixteen at one grain, three at various quantities, thirteen at half a grain. Not cured, one at one grain, one at various quantities, and four at half a grain. To avoid prolixity, the cures were thus noted only every five days; ſo that all perſons cured between the fifth and tenth day, appear in the column of the tenth day; but in order to ſtrike an average for the length of the cure, it was neceſſary to come to greater preciſion, by ſumming up the exact number of days of all the caſes. The total was found to be 286; and this divided by 51, the number of caſes gives 5 and 6-10ths, or 5$\frac{1}{2}$ nearly for the average. When the ſolution was uſed, the average appears to have been nearly the ſame, *viz.* 5. 2. The relapſed are thoſe who had a relapſe in the ſame year.

The

The obſervations that occur from the above table are, *1ſt*, That one grain for a doſe ſucceeded oftener than ſmaller quantities; and, in general, the larger the doſe that the ſtomach would bear, the more certain was the cure. *2dly*, That the greateſt number were cured on or before the fifth day. *3dly*, That pills were more ſucceſsful than ſolution, which ſeems to be explained by obſervation firſt; and they ſeemed alſo more gentle in their operation. *4thly*, That under the head of *not cured*, are comprehended a great many caſes, in which the tartar emetic might more properly be ſaid to be inadmiſſible than efficacious, as it was continued but for a few days: Theſe were caſes in which it generally excited vomiting. I have, however, comprehended both under the ſame head, becauſe a remedy that cannot be uſed, is not better than a remedy that wants effect. To theſe may be added, a few obſervations which could not appear in the table. *1ſt*, That the tartar emetic, on firſt taking, ſometimes ſeemed to change a tertian into a quotidian, or ſometimes rendered the firſt fits more ſevere; but both theſe effects were uncommon. *2dly*, That the patient ſometimes relapſed during the continuance of the

ſame

fame dofe that had removed the fit; but this would probably not have happened, if they had the advantages of a reftorative diet and exercife. 3*dly*, The tartar emetic, in a few cafes, effected a cure without ever having occafioned vomiting; and thefe perfons, in general, took pretty large dofes, *viz.* a grain and a half, or two grains.

I am now to obferve, that the one hundred and thirty-three cafes above fpecified, occurred in the courfe of a fummer which was uncommonly hot, the thermometer being frequently above ninety, fometimes at ninety-two, and once at ninety-four. I have at other times found the tartar emetic more fuccefsful than it was during this period, and know no other caufe to attribute it to than the coolnefs of the weather. The year 1781 was remarkably cool, and in ninety-five perfons who took the tartar emetic, only twelve were not cured. The number of relapfes does not appear to be proportionally diminifhed; but this may perhaps arife merely from the circumftance of many of thefe cafes having happened early in the fummer, and confequently the patients being expofed for a greater length of time (*viz.* during all

all the remainder of the summer and autumn) to relapses.

*Second Part of Table* No. I.

| | Cured. | Number of days used. | Not cured. |
|---|---|---|---|
| | 48 | 5 | 1 |
| | 24 | 10 | 5 |
| | 7 | 15 | 4 |
| | 4 | 20 | 2 |
| Total cured, | 83 | | 12 |
| Relapsed, | 22 | | |
| Average of the number of days cure, | $6\frac{1}{4}$ | | |

In this second part of the first table, I have not thought it necessary to trouble the reader with all the detail that is found in the first part. The quantity of tartar emetic used is not specified; but it is to be understood, that the dose was regulated in the manner formerly mentioned. In all these cases, the tartar emetic was given in the form of pills.

No. II.

| *Cured.* | *Relapsed.* | *Not Cured.* |
|---|---|---|
| 9 | 4 | 20 |

A draught of liquid laudanum fifteen drops, crude sal ammoniac two scruples, was given at the

the commencement of each hot fit. In moſt of the caſes, the patient was under a courſe of tartar emetic.

No. II. is intended to ſhew, in ſome meaſure, the effects of anodyne draughts given at the commencement of the hot fit. After a conſiderable number of trials, it appeared pretty evident to me, that anodynes given in theſe circumſtances were rendered much more efficacious by the addition of a neutral ſalt, as crude ſal ammoniac. This draught ſcarcely ever failed to remove all the painful ſymptoms of the hot fit, to procure ſleep, to bring on a copious ſweat, and to ſhorten the paroxyſm. Such effects were certainly very deſirable, and, in ſome caſes, worth procuring at all events; and yet I am inclined to think, that theſe palliative draughts tended to protract the diſeaſe, and to hinder a perfect cure. I cannot poſitively affirm this, becauſe I am well aware that a conſiderable number of the caſes in No. II. were rather more ſevere than the generality; and if obſtinacy in intermittents ſhould invariably be found to be connected with the ſeverity of the paroxyſms, it will be neceſſary to ſtrike off at leaſt one-third of the caſes from this table, as being rather a-

R bove

bove the medium in reſpect to the degree of violence. Upon the whole, the effects of theſe draughts ſeem ſo deſirable, that experiments ſhould be made in greater number, and with more accuracy than the preſent, before they ought to be rejected.

No. III.

| | Cured. | Relapſed. |
|---|---|---|
| By tartar emetic, either in pills or ſolution, according to No. I. | 84 | 19 |
| By Peruvian bark, - - | 60 | 34 |

By No. III. it appears, that there were much fewer relapſes after the tartar emetic than after the Peruvian bark; and it only remains to enquire, how far the circumſtances were ſimilar in which theſe trials were made. And, *firſt*, in favour of the bark, it muſt be obſerved, that in about half of the caſes in which the Peruvian bark was given, the tartar emetic had already been exhibited without ſucceſs. Suppoſe, that of theſe thirty caſes, it had been inadmiſſible in fifteen; and that, in the remaining fifteen, it had been fairly tried without ſucceſs: It will then be reaſonable to ſuppoſe, that theſe laſt fifteen caſes were in their nature more obſtinate than

than the medium. On the other ſide of the queſtion, it may be urged, *firſt*, That as intermittents here ceaſe (with a very few exceptions) on the ſetting in of the cold weather, and as the trials of the tartar emetic were made in the ſummer, whilſt thoſe of the cortex were made at the cloſe of the ſeaſon of intermittents, it muſt be allowed, that there were more time and opportunities for relapſes in thoſe who took the tartar emetic, than in thoſe who took the bark; more eſpecially when we conſider, that a ſoldier, as ſoon as he was diſcharged from the ſick liſt, became liable to all the inclemencies of the weather, often being wet up to his middle all day, and lying in the woods all night, expoſed to the fogs, rain, and moiſture of the earth. *2dly*, It muſt be obſerved, that a conſiderable number of thoſe who took the bark left Niagara immediately after, ſo that there was no opportunity of noting relapſes, if there were any. Upon the whole, I am of opinion, that the arguments on both ſides ſeem ſo nearly balanced, that we may venture to take the table as it ſtands.

No. IV.

| *Cured.* | *Relapsed.* | *Not Cured.* |
|---|---|---|
| 12 | 9 | 1 |

A pill compofed of tartar emetic two grains, opium half a grain, taken two, three, and fometimes four times in twenty-four hours.

*N. B.* The average of the time required for a cure was feven days.

No. IV. fhews the refult of fome experiments formerly made with a combination of tartar emetic and opium in intermittents.

The fuccefs here appears to have been great, and yet, upon the whole, I do not think it is a method that can be recommended. The objections were, firft, The difagreeable circumftance of an almoft conftant ficknefs. The fecond is a confequence of the firft, *viz.* The patient not being able to take nourifhment; he therefore remained weak; and to this, in a great meafure, muft be attributed the great number of relapfes; at the fame time, it ought to be obferved, that thefe trials having been made early in the fummer, there were more opportunities for relapfes that feafon. I made a few trials with the cuprum ammoniacum and the flores

flores zinci. The former ſucceeded in ſome caſes, but excited conſiderable ſickneſs, and ſometimes vomiting. The zinc ſeemed to have not the leaſt effect on the intermittent. I have cured ſeveral intermittents, by putting the patient's feet in warm water, and giving a draught of liquid laudanum from twenty-five to thirty drops, with one dram of crude ſal ammoniac, about an hour and a half before the fit was expected. I muſt, however, acknowledge, that it has likewiſe very often failed: Perhaps its failure is as often owing to the difficulty of fixing upon the exact time of exhibition, as to want of efficacy in the remedy. I think I have heard it obſerved by Dr Cullen, that if the ſtimulant effects of an opiate were over before the time of the recurrence of the paroxyſm, it would not ſucceed in preventing it. Suppoſing this to be the caſe, the difficulties are evident: 1*ſt*, The period of the ſtimulant effects of opiates is to be fixed. 2*dly*, It is neceſſary to aſcertain whether the conſtriction upon the ſurface is not irremediable (at leaſt by any means we would chuſe to make uſe of) many minutes before there are any manifeſt ſigns of it. Theſe are difficulties even ſuppoſing the returns of the paroxyſm to

be regular to a minute; how ſeldom this is the caſe, I leave to every practitioner to judge. It has been obſerved in general (but with many exceptions), that if the above remedy ſucceeded in raiſing a ſweat, it prevented the return of the paroxyſm: Whether this was not rather a concomitant effect than a cauſe, may, I think, be very juſtly doubted; certain it is, that I have frequently known a profuſe ſweat ſuddenly diſappear, and a regular paroxyſm inſtantly ſucceed.

I ſhall now cloſe this ſubject with a few general remarks; and the firſt that occurs is, that in all the above caſes the diet was the moſt unfavourable that can be ſuppoſed, the only alternatives being ſalt pork, or bread and tea. It is but reaſonable to ſuppoſe, that if a nouriſhing diet, of eaſy digeſtion, could have been procured, the proportion, both of failures and relapſes, would have been conſiderably diminiſhed. 2*dly*, Before an intermittent is completely formed, there is for many days a ſtate of laſſitude, diminiſhed appetite, and tendency to thirſt, with aching in the limbs. The tartar emetic given in theſe circumſtances has never failed to remove the ſymptoms, and prevent the formation

of

of a regular ague; but it muſt be acknowledged, that obſervations of this kind were not very extenſive, as ſoldiers ſeldom complain till they have already had a paroxyſm or two. *3dly*, From what has been ſaid, it appears, that tartar emetic is an uſeful remedy in intermittents. In the caſes in which it ſucceeds, it is probable that it will be found to have two advantages over the bark; *firſt*, That the patient will be leſs liable to relapſes. *2dly*, That it leaves him with a better appetite, and, upon the whole, in a better ſtate than the bark. But if, on the contrary, after five or ſix days trial, it ſhould not be found to have leſſened or retarded the paroxyſms, it will at leaſt be attended with this advantage, that no time will have been loſt, and the patient will have been as well, or perhaps better prepared for the exhibition of the bark, than he would have been by any other courſe in the ſame time. There are, however, caſes in which little can be expected from it, and others where it might be highly injurious; amongſt the former, I imagine may be reckoned intermittents of long ſtanding, where the ſtrength is much impaired. Amongſt the latter, great irritability of the ſtomach inteſtines, or perhaps even of the

ſyſtem in general. There is one circumſtance worth remarking, *viz.* that though in North America intermittents are very common in the vicinity of all the large lakes that are to the ſouthward of 45 degrees of latitude, yet I have never ſeen a quartan, or met with any practitioner that had ſeen one. Whether the tartar emetic would be equally efficacious in fenny ſituations, and countries where quartans are met with, I cannot pretend to ſay. There is another phænomenon, which, from the deſcriptions of intermittents I have generally met with, I ſhould be led to imagine was rather peculiar to this part of the world, I mean the frequent want of a lateritious ſediment in the urine. In this particular, I have taken all the precautions I was acquainted with, *viz.* taking my obſervations only from urine paſſed at the termination of a paroxyſm, and in caſes where the intermiſſions were perfect; and yet the proportion of thoſe where there was no ſediment was as four to one.

I have ſaid above (p. 260.) that if the patients could have had the advantages of a nouriſhing diet, it was reaſonable to ſuppoſe, that the number of failures and relapſes would have been diminiſhed.

minifhed. Succeeding obfervations have not abfolutely contradicted this fuppofition; but I muft acknowledge, that they have by no means tended to confirm it; and, in the few cafes I have had an opportunity of feeing, I have certainly not found all the benefit I expected from the article of diet. As far as I have been able to obferve, the foldiers were cured as foon as the officers and other perfons who had every advantage that could arife from a nourifhing diet and the ufe of wine. I am apt to believe, therefore, that the benefit of a cordial and nourifhing diet muft be limited to cafes of fome ftanding, and that, in the firft days of an intermittent, a diluting diet may be more proper, even though there are no figns of an inflammatory tendency, and although the primæ viæ are already cleared. The want of appetite, and averfion to wine, which take place at this time, feem to point this out. If this be really the cafe, it is an eafy matter to perceive the reafon why the tartar emetic, which in general performs a cure in the firft fix or eight days, fucceeded as well with the foldiers as with the officers.

From the obfervations which I have been able to make, riding on horfeback appears to be much

much more entitled to the name of a ſpecific in intermittents than in conſumptions. Unfortunately the inactivity of mind and body which this diſeaſe induces, ſeldom allow the patient to puſh it as far as is neceſſary. Riding ſhould certainly never be carried ſo far as to fatigue; but every day will remove this limit to a greater diſtance. In countries where intermittents are endemic, daily riding on horſeback may not only be ſerviceable as a preventative, but it is alſo attended with this further advantage, that in caſe of ſickneſs it can be puſhed much farther without fatigue than if the patient had never been accuſtomed to it.

I come next to mention a few trials which I made of a remedy ſaid to be of much repute among the Indians and Woodſmen of North America, for the cure of the dyſentery. I had often been told, that wood-aſhes, mixed in rum, was a very effectual cure for this diſeaſe; at laſt, an officer who had been out with Indians on a ſcout, aſſured me, that he himſelf had been cured by it. Suppoſing that the virtue of this remedy muſt depend on the fixed alkaline ſalt, I made a lixivium of aſhes in water; and after the

previous

previous evacuations by a vomit and purge, I gave it to eight perſons: Of theſe, ſeven were cured by it; and this in the courſe of eight or ten days upon an average. It is remarkable enough, that this remedy, although ſo acrid as to excoriate the fauces, if not largely diluted, always eaſed the belly, and removed the gripes very ſoon after it was ſwallowed, and gradually diminiſhed the number of ſtools. There was reaſon to imagine that it ſometimes had a ſlight purgative effect. After ſome trials, I at laſt fixed upon what appeared to be the moſt advantageous doſe, and by evaporating it, found that it contained about forty-ſix grains of reſiduum, which was nearly all fixed alkali. I generally gave this doſe every night, and ſometimes repeated it in the morning. I muſt now obſerve, that the above eight caſes were not of the moſt violent kind, as the number of ſtools in twenty-four hours did not in general exceed ten or twelve; but encouraged by this ſucceſs, I afterwards made trial of it in more violent ones, and particularly in two or three, in which the number of ſtools in twenty-four hours exceeded one hundred. I cannot ſay, that in theſe caſes I perceived any benefit from it; at the ſame time,

it

it is but juftice to acknowledge, that I did not repeat the remedy as often, or perfift in its ufe as long as the violence of the difeafe might require. Notwithftanding what I had experienced, I could never free my mind fo far from prejudice, as not to dread the effects of fo acrimonious a medicine, in a difeafe where the parts muft always be in fome degree in a ftate of inflammation whenever it is violent. Neverthelefs, if I fhould ever be in fuch a fituation as to be deftitute of other remedies for the dyfentery, authorifed by the teftimony of fo many perfons, and by my own experience, I fhould make no fcruple to pufh my experiments with this remedy much farther. I muft not omit obferving, that in the laft mentioned cafes, in which it did not fucceed, and particularly in the two or three violent ones there fpecified, on its firft exhibition it inconteftibly gave eafe, and the ftools came away with much lefs pain; fucceeding dofes had certainly not an equal effect, and I even began to fufpect that they increafed the difeafe; whether or not I did not take the alarm too foon, I will not pretend to determine. The patients afterwards recovered by the common methods, and there is therefore reafon to fup-

pofe

pofe, that at leaft the lixivium did no effential injury. I have ftated thefe facts as they happened; and if they fhould tend to throw any light, either on the theory or method of treatment of the dyfentery, my purpofe will be anfwered.

*Regifter of forty-fix Cafes of Lues Venerea.*

*Explanation of the following Tables.*] The firft two columns mark the ftate of the difeafe at the time the cure was undertaken; the firft, fhewing the number of days that the patient had had the complaint; the fecond column marking the degree; and, for this purpofe, I have diftinguifhed three ftages. 1*ft*, Excoriations or ulcerations confined to the prepuce or glans. 2*dly*, Eruption, tumour, or ulceration, in any other part of the body, without nocturnal pains, or affections of the bones. 3*dly*, Nocturnal pains or affections of the bones. The figures in this column, therefore, fignify, firft, fecond, third ftage; and, for further precifion, the degree of violence of each ftage is fubjoined by the initial letter of Slight, Middling, or Violent. I do not pretend to enter into

into the merits of theſe diſtinctions; all that I can ſay is, that ſomething of the kind was abſolutely neceſſary for reducing caſes to a table, and that this form was the firſt that ſuggeſted itſelf to me. The third column gives the ſeaſon of the year, and the patients names, which are numbered merely for the convenience of references. The fourth and fifth ſhew the reſult. The ſixth and ſeventh ſhew the removal of the ſymptoms; the ſixth pointing out in how many days this was effected, and the ſeventh by what quantity of the remedy. It often happened, that warts, or a thickening and hardneſs of the prepuce, remaining after the inflammation was gone, rendered the exact time of the ſymptoms diſappearing rather doubtful; all theſe caſes, therefore, are marked with the letter D. With regard to the eighth and ninth, intended to ſhew the evacuations cauſed by the mercury, I am ſenſible that this head is in a very imperfect, and a very incorrect ſtate. In general, the figures ſhew in how many days the ſpitting began, and by what quantity of mercury; and where the letters U or S occur, they ſignify, that the Urine or Sweat was increaſed. The tenth and eleventh reſpect the whole courſe; the tenth

tenth ſhewing the number of days that it continued, and the eleventh the quantity of the remedy employed. It will perhaps be objected by ſome, that even in the averages of theſe tables there appear great inconſiſtencies, the confirmed lues venerea in its laſt ſtage having ſometimes required but a ſmall quantity of mercury, whilſt the firſt ſtage has required a very large one. But this obſervation will only tend to confirm what I wiſh to repreſent, *viz.* the inſufficiency of confined obſervations, and the neceſſity of extenſive ones.

In almoſt all the caſes of lues venerea, the infection was communicated by Indian ſquaws, and I have been ſometimes inclined to think, that it was more virulent than in white women.

METHOD

METHOD I. *Corrosive Sublimate Mercury one-fourth grain in half an ounce of spirits, twice, and in some cases thrice a-day.*

| State. | | Names. | Result. | | Symptoms disappeared | | Evacuation. Spitting began. | | Course. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Number of days standing. | Degree. | | Not cured. | Relapsed. | in Days. | by Grains. | Days. | Grains. | Days. | Grains. |
| 6 | 1. M | Feb. 1. Wills. | 1 | | | | 13 | $6\frac{1}{2}$ | 63 | 22 |
| 2 | 1. S | July 2. M'Cann. | | | 4 | 2 | | | 14 | 7 |
| 1 | 1. S. | 3. Gollaughar. | | | 10 | 5 | | | 19 | 10 |
| 21 | 2. M | 4. Patmore. | | | 10 | 5 | | | 24 | 12 |
| 3 | 1. S. | Sept. 5 Overhead. | | | 12 | 6 | | | 18 | 9 |
| 3 | 1. S. | Nov. 6. Embery. | | | 12 | 6 | | | 36 | 18 |
| 180 | 2. S. | Dec. 7. Assel. | | | 40 | 20 | | | 50 | 25 |
| 21 | 2. S | Oct 8. Tarling. | 1 | | | | | | 57 | 28 |
| 6 | 2. M | Nov. 9 W. Wright | | 1 | 21 | 10 | | | 31 | 15 |
| 5 | 2. M. | 10. Pearce. | | 1 | 59 | 29 | | | 63 | 31 |
| 7 | 1. S. | July 11. M'Lanigan | | | 9 | $4\frac{1}{2}$ | | | 24 | 12 |
| 21 | 2. M. | Jan. 12. Flaharty. | | | 46 | 26 | | | 53 | 31 |

Cured, 8 }
{ Not cured, 2 } Not cured, 4 } Total.
{ Relapsed, 2 }

---

1st Stage, { Cured, 5 } 6
{ Not cured, 1 }

2d Stage, { Cured, 3 } 6
{ Not cured, 3 }

---

*Averages of a Course.*

| | Days. | Grains. |
|---|---|---|
| 1st Stage, - | 29 | 10 |
| 2d Stage, - | 46 | 23 |

**Method II.** *Acrid Corrosive Sublimate Mercury one-fourth grain, twice or thrice a-day.*

| State. | | Names. | Result. | | Symptoms disappeared | | Evacuation. Spitting began. | | Course. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Number of days standing. | Degree. | | Not cured. | Relapsed. | In Days. | By Grains. | Days. | Grains. | Days. | Grains. |
| 190 | 3. M | March 1. St Robison | 1 | | | | U. | | 34 | 20 |
| 200 | 2. M | Feb. 2. C. Hains | | | 42 | 23 | 10 | 8 | 56 | 33 |
| 4 | 2. S. | 3. Liddle | | | 24 | 6 | 7 | 4½ | 39 | 14 |
| 5 | 1. M | 4. Prescot | | | 24 | 17 | 20 | 15 | 38 | 23 |
| 21 | 3. S. | 5. Stopple | | | 35 | 26 | | | 49 | 37 |
| 4 | 1. M | 6. St Pierre | | | 51 | 25 | 29 | 21 | 56 | 28 |
| 120 | 2. S. | 7. Ashton | | 1 | D. | | 8 | 4 | 50 | 8 |
| 7 | 1. M | 8. Roebuck | | | 42 | 30 | | | 56 | 41 |
| 3 | 1. M | 9. Williams | | 1 | 20 | 12 | | | 36 | 24 |
| D. | 2. M. | 10. Russen | | 1 | 48 | 35 | 52 | 38 | 61 | 42 |

*Remarks.*

The sublimate was here made acrid, by the addition of sal ammoniac. The solution was in water.

| | | | | |
|---|---|---|---|---|
| | | Cured, | 6 | Total. |
| Not cured, 1 | Relapsed, 3 | Not cured, | 4 | |

| | | | |
|---|---|---|---|
| 1st Stage, | Cured, | 3 | 4 |
| | Not cured, | 1 | |
| 2d Stage, | Cured, | 2 | 4 |
| | Not cured, | 2 | |
| 3d Stage, | Cured, | 1 | 2 |
| | Not cured, | 1 | |

*Averages of a Course.*

| | Days. | Grains. |
|---|---|---|
| 1st Stage, - | 46 | 36 |
| 2d Stage, - | 51 | 24 |
| 3d Stage, - | 41 | 28 |

METHOD III. *Acrid Corrosive Sublimate Mercury one-fourth grain, twice or thrice a-day. Decoction of the woods four ounces, twice a-day: The warm bath, five, six, or more times during the course.*

| State. | | Names. | Result. | | Symptoms disappeared | | Evacuation Spitting began. | | Course. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Number of days standing. | Degree. | | Not cured. | Relapsed. | In Days. | By Grains. | Days. | Grains. | Days. | Grains. |
| 10 | 2. S. | March 1. Baker | | | 22 | 15 | 20 | 15 | 36 | 20 |
| 10 | 2. S | 2. S. Wells | | | 19 | 12 | S | | 31 | 20 |
| 14 | 1. M. | 3 Hully | | | 25 | 11 | 4 | 2 | 37 | 17 |
| 21 | 1 V. | April 4. Johnson | | | 26 | 15 | 12 | 9 | 36 | 20 |
| 10 | 2. M | 5. Flaharty | | | 59 | 43 | | | 72 | 53 |
| 35 | 1. S. | June 6. C. Robison | | | 9 | 5 | 8 | 5 | 23 | 11 |
| 21 | 1 M | April 7 Atkins | | | D. | | 20 | 8½ | 72 | 19 |
| 6 | 1. S. | 8. Wills | 1 | | | | 26 | 13 | 55 | 17½ |
| 60 | 2. V. | 9 Bush | | 1 | D. | | | | 50 | 27 |
| 10 | 2. M. | June 10. S Pearson | | | 37 | 27 | | | 48 | 36 |
| 3 | 1. S. | June 11. Keysal | | 1 | 32 | 17 | 19 | 14 | 32 | 17 |

*Remarks.*

*N. B.* In the eleventh case, as the medicine was obliged to be omitted (on account of another complaint) the same day the symptoms disappeared, it is called *irregular*, and not included in the general summing up of the cases.

| | | | |
|---|---|---|---|
| | Cured, | 8 | Total. |
| Not cured, 1; Relapsed, 1 | Not cured, | 2 | |

| | | | |
|---|---|---|---|
| 1st Stage, | Cured, | 4 | 5 |
| | Not cured, | 1 | |
| 2d Stage, | Cured, | 4 | 5 |
| | Not cured, | 1 | |

*Averages of a Course.*

| | Days. | Grains. |
|---|---|---|
| 1st Stage, - | 44 | 17 |
| 2d Stage, - | 47 | 31 |

One irregular Case not cured.

PART

## PART I. METHOD IV. *Friction with Mercurial Ointment. The Warm Bath, five, six, or more Times.*

| State. | | Names. | Result | | Symptoms disappeared | | Evacuations. Spitting began | | Course. | | References. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of days standing. | Degree. | | Not Cured. | Relapsed. | In Days. | By Drams of Mercury. | In Days. | By Drams of Mercury. | Days. | Drams of Mercury. | |
| 60 | 3. M. | Dec. 1. Lamb | | | | | 5 | 2 | 72 | 11 | |
| 21 | 1. V. | May 2. Maycock | | | D | | 23 | 28 | 41 | 40 | |
| 457 | 2. M | 3 Ling | | | 20 | 6 1-3d | 7 | 2 | 52 | 11 | |
| 7 | 1. V | 4. C. May | | | 18 | 9 | 9 | | 28 | 11 | |
| 180 | 3 V. | March 5. Wall | | | 9 | 3 | 11 | 3 | 28 | 5 | |
| 3 | 1. M | 6. Bayes | | | 53 | 9 | 6 | 3 | 64 | 12 | *Vide* |
| 3 | 1. S. | April 7. Roebuck | | 1 | 34 | 11 | 8 | | 44 | 14 1-3d | 2. of IV. 16. |
| 4 | 1. S. | 8. Bayes | | | 13 | 2 2-3ds | 6 | 2 | 28 | 3 1-3d | |
| 60 | 1. M | July 9. Godfrey | | | 10 | 2 2-3ds | 8 | 2 2-3ds | 21 | 4 2-3ds | |
| 80 | 2. S. | Aug. 10. Hubber | | 1 | 5 | 2 | 6 | 2 | 26 | 4 2-3ds | 2. of IV. 20. |
| 35 | 2. S | Sept. 11. Lewis | | 1 | 14 | 2 | 5 | 2 | 35 | 4 | 2. of IV. 18. |
| 21 | 1. V | Oct 12. D. Derry | | | 18 | 2 | 16 | 2 | 31 | 4 | |
| 60 | 2. S. | 13 Miner | | 1 | 22 | 4 2-3ds | 14 | 4 2-3ds | 44 | 7 1-3d | V. 2. |
| 150 | 1. S | 14 Ward | | | 8 | 1 1-3d | 11 | 1 1-3d | 28 | 3 1-3d | |
| 60 | 1. M | Sept. 15 Almon | | | 29 | 5 2-3ds | 7 | 2 2-3ds | 52 | 9 | |
| 5 | 1. M | Nov. 16. Swiney | | | 34 | 6 2-3ds | 8 | 3 1-3d | 52 | 8 2-3ds | |
| 365 | 2. M | 17. M'Laughlan | | | 25 | 4 2-3ds | 10 | 3 1-3d | 45 | 8 2-3ds | |
| 14 | 1. M. | 18. Burrows | | 1 | 39 | 6 2-3ds | 9 | 2 2-3ds | 56 | 8 2-3ds | 2. of IV. 19. |
| 60 | 2. M. | 19. Cooper, A. | | | 47 | 6 2-3ds | 6 | 2 | 62 | 11 1-3d | |
| D. | 2. V. | March 20. Cooper, P. | | | 20 | 3 1-3d | 6 | 2 | 43 | 6 2-3ds | |
| 3 | 1. S | Feb. 21. C. Moran | | | 30 | 8 | 19 | 6 | 44 | 11 1-3d | |
| D. | 2. S. | 22. Pickering | | | 21 | 4 | 8 | 2 2-3ds | 37 | 6 | |
| 5 | 1. S. | May 23. A. B. | | | 24 | 6 2-3ds | 31 | 9 | 41 | 11 1-3d | |
| D. | 2. M | 24. C. D. | | | 13 | 4 | 4 | 1 1-3d | 35 | 10 | |
| 240 | 2. M. | 25. Allen | | | D | | 11 | 3 1-3d | 44 | 7 1-3d | |

*N. B.* To avoid all miſtakes occaſioned by the different ways of preparing mercurial ointment, the quantity of extinguiſhed mercury is here marked, and not the quantity of ointment.

Cured, - - 20 }
{ Not cured, - 0 } Not cured, - 5 } Total.
{ Relapſed, - 5 }

| | | | |
|---|---|---|---|
| In the 1ſt Stage, | Cured, - - | 11 | 13 |
| | Not cured, - - | 2 | |
| 2d Stage, | Cured, - - | 7 | 10 |
| | Not cured, - - | 3 | |
| 3d Stage, | Cured, - - | 2 | 2 |
| | Not cured, - - | 0 | |

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*Averages of a Courſe.*

| | Days. | Drams of Mercury. |
|---|---|---|
| In 20 cured, - | $42\frac{1}{2}$ - | $9\frac{2}{3}$ |
| In 5 not cured, - | 41 - - | $7\frac{2}{3}$ |

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*Averages of the Removal of Symptoms.*

| | In Days. | By Drams of Mercury. |
|---|---|---|
| General average, - | 23 - | 5 |
| Average of the 1ſt Stage, | $25\frac{3}{4}$ - | 6 |
| 2d Stage, | $20\frac{3}{4}$ - | 4 |
| 3d Stage, | 9 - | 3 |

PART

## PART II. Method IV. *The Method of* No. IV. viz. *Frictions and Bathing, tried upon Patients who had previously used some other Method without Success.*

| State. | | Names. | Result | | Symptoms disappeared | | Evacuations. Spitting began | | Course. | | References. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Days standing | Degree. | | Not cured. | Relapsed. | In Days | By Drams of Mercury. | In Days. | By Drams of Mercury. | Days. | Drams of Mercury. | |
| 70 | 2. M. | Nov. 1. Wright from I. 8. | | 1 | 9 | 3 1-2d | 7 | 3 | 34 | 12 | *Vid.* 13. |
| 87 | 2. M | —— 2. Tarling, from I. 7. | | | 40 | 10 | 5 | 2 | 47 | 10 | |
| 250 | 3. M | Mar. 3 S. Robison, from II. 1. | | | 13 | 7 | 10 | 7 | 17 | 7 | |
| 70 | 1. S. | May 4. Williams, from II. 9. | | | 6 | 2 1-3d | | | 21 | 5 | |
| 42 | 1. M | June 5 Keysal, fr. III. irr. case | | 1 | 13 | 2 | 5 | 2 | 21 | 3 | *V.* 14. |
| D. | 2. M. | —— 6 Russen, from II. 10. | | | 12 | 3 | 6 | 3 | 26 | 3 | |
| 120 | 1. S. | —— 7. Wills, from III. 8. | | 1 | 42 | 7 | 7 | 2 1-3d | 56 | 10 2-3ds | *V.* 15. |
| 180 | 2. V. | July 8. Bush, from III. 9. | | | 19 | 7 | 8 | 3 1-3d | 41 | 10 2-3ds | |
| 140 | 3. M. | May 9. Pearce, from I. 9. | | | 80 | 18 | 5 | 2 2-3ds | 80 | 18 | |
| 365 | 1. S. | Aug. 10. John — method unkn. | | | 10 | 2 2-3ds | 4 | 1 1-3d | 20 | 2 2-3ds | |
| D. | 2. M | —— 11. Mrs P. fr. III. irr. case. | | | 28 | 7 | 12 | 4 | 42 | 10 | |
| 220 | 2. M | —— 12. Ashton, from II. 7. | | | 22 | 2 2-3ds | 5 | 2 | 46 | 3 1-3d | |
| 270 | 2. V. | —— 13 Wright, from 2. of IV. 1 | | | 18 | 9 | 6 | 2 2-3ds | 38 | 5 1-3d | |
| 150 | 1. S. | Oct. 14. Keysal, from 2. of IV. 5 | | | 13 | 2 2-3ds | 9 | 2 2-3ds | 38 | 5 1-3d | |
| 250 | 2. S. | —— 15. Wills, from 2. of IV. 7. | | 1 | 9 | 2 2-3ds | 11 | 3 1-3d | 27 | 3 1-3d | *V.* V. 1. |
| 180 | 2. S | —— 16. Roebuck, from IV. 7. | | | 12 | 4 | 11 | 4 | 34 | 4 2-3ds | |
| 90 | 2. S | Nov. 17. Young, method unkn. | | | 8 | 2 2-3ds | 7 | 2 2-3ds | 26 | 4 | |
| 130 | 3. S. | —— 18 Lewis, from IV. 11. | | | 23 | 5 1-3d | 15 | 5 1-3d | 44 | 8 2-3ds | |
| 200 | 2. M. | Apr. 19 Burrows, from IV. 18. | | | 21 | 4 2-3ds | 6 | 2 | 35 | 6 | |
| 250 | 2. S. | —— 20. Hubber, from IV. 10. | | | 10 | 2 | 7 | 2 | 38 | 4 2-3ds | |
| 177 | 2. M. | —— 21. Miner, from V. 2. | | | 18 | 2 | 6 | 2 | 48 | 5 1-3d | |

| | | | | | |
|---|---|---|---|---|---|
| | | Cured, - | 17 | Total. |
| Not cured, - | 0 | Not cured, - | 4 | |
| Relapsed, - | 4 | | | |

| | | | |
|---|---|---|---|
| In the 1st Stage, | Cured, - - | 3 | 5 |
| | Not cured, - - | 2 | |
| 2d Stage, | Cured, - - | 11 | 13 |
| | Not cured, - - | 2 | |
| 3d Stage, | Cured, - - | 3 | 3 |
| | Not Cured, - - | 0 | |

---

*Averages of a Course.*

| | Days. | | Drams of Merc. |
|---|---|---|---|
| In 17 cured, - - | $37\frac{3}{4}$ | - | $7\frac{1}{4}$ |
| In 4 not cured, - - | $34\frac{1}{2}$ | - | $7\frac{1}{4}$ |

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*Averages of the Removal of Symptoms.*

| | | In Days. | | By Drams of Merc. |
|---|---|---|---|---|
| General average, | - | $20\frac{1}{4}$ | - | 5 |
| In the 1st Stage, | - | $16\frac{3}{4}$ | - | $3\frac{1}{8}$ |
| 2d Stage, | - | $17\frac{1}{2}$ | - | $4\frac{1}{2}$ |
| 3d Stage, | - | $38\frac{3}{4}$ | - | 10 |

METHOD

## METHOD V. *Plummer's Pills: Decoction of the Woods.*

| State. Number of Days standing. | State. Degree. | Names. | Result. Not cured. | Result. Relapsed. | Symptoms disappeared In Days. | Symptoms disappeared By Scruples. | Evacuations. Spitting began In Days. | Evacuations. Spitting began By Scruples. | Course. Days. | Course. Scruples. | Reference. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 300 | 2. S. | Dec. 1 Wills. from 2. IV. 15 | | 1 | 53 | 3 1-2d | 7 | 3 1-2d | 43 | 7 1-2d | |
| 120 | 2 M | Jan. 2 Miner, from IV. 13 | 1 | | | | 22 | 12 | 57 | 17 1-2d | V. 2. of IV. 21. |

Cured, - - 0
{ Not cured, - 1 / Relapsed, - 1 } Not cured, - 2

*Average of a Course.*

| | Days. | Scruples of Pill. |
|---|---|---|
| In 2 not cured, - | 50 | $12\frac{1}{2}$ |

*N. B.* It was not intended to raise a salivation in either case.

## *Summary of the Tables of Lues Venerea.*

| | Cured | Not Cured. | Symptoms removed in Days. |
|---|---|---|---|
| METHOD I. Van Swieten's solution of sublimate, | 8 | 4 | $22\frac{1}{3}$ |
| METHOD II. Sublimate rendered acrid, - | 6 | 4 | $35\frac{3}{4}$ |
| METHOD III. Sublimate rendered acrid; warm bath; decoction of the woods, - - | 8 | 2 | 28 |
| METHOD IV. Mercurial frictions, and warm bath, | 20 | 5 | 23 |
| PART II. of IV. Where some other method had been previously tried without success, - - | 17 | 4 | $20\frac{1}{4}$ |
| METHOD V. Plummer's Pills; decoction of the woods, - - - | 0 | 2 | |

*N. B.* The Author has never had it in his power to make any trials of the sarsaparilla, which were sufficiently accurate for publication.

*Query.* As the 3d method (ſublimate rendered acrid, and the warm bath) appears to have been attended with the feweſt relapſes, and as the 4th (mercurial frictions and warm bath) was never found to fail in removing the ſymptoms for the preſent time; might not a judicious combination of theſe methods, at leaſt, merit a trial? the 4th method being uſed for three weeks, or longer, if the ſymptoms did not give way, and the third being afterwards purſued for a fortnight, or longer.

I have not intruded the above caſes of lues venerea upon the public, with a view of drawing any concluſions reſpecting the different methods of cure therein made uſe of. I am ſenſible their number is by no means adequate to ſuch a purpoſe. My ſole intention was, to ſupport an attempt which I think every individual of the Faculty is bound to make, towards drawing his profeſſion out of that ſtate of uncertainty in which it ſtill is, with reſpect to one of the moſt intereſting points, I mean the effects of medicines. How far ingenious theories, and ſubtile diſquiſitions, have tended to throw light upon the nature of diſeaſes, and the operation of remedies, may be difficult to determine:

Thoſe

Thofe who are difpofed to be fatirical, allege, that we have changed our theories as often as we have our fafhions; and that, neverthelefs, men in all ages have feemed as perfectly fatisfied with the infalibility of the prefent theory, as they were with the fuperiority of the prefent cut of their coat. Politenefs obliges us to fuppofe, that the theories of this age will be more immutable. Such, however, is the inconfiftency of human nature, that the moft ftrenuous oppofers of dogmatifm might probably be detected every minute in making ufe of fome degree of it, though almoft unknown to themfelves; and I imagine, that a pure empiric will as rarely be found among men of fenfe and learning, as an Atheift will be among philofophers. If we next turn our views towards obfervation, and examine what affiftance we have derived from it upon the prefent fubject, I am afraid we fhall find it far fhort of what might have been expected. It is well known, that as long as mercury has been in ufe, the comparative fuperiority of its different preparations is fo far from being afcertained, that the moft oppofite opinions have been entertained by the firft authorities, even with regard to the fame preparation.

tion. Almoſt as much might be ſaid of antimony, opium, hemlock, neutral ſalts, the different methods of blood-letting, and, in ſhort, of the generality of remedies. It is difficult to find, not only two nations, but even two individuals in the ſame village, who have preciſely the ſame opinions of the virtues and efficacy of of a remedy. If we endeavour to trace the ſource of this contrariety of opinions, this reproach to medicine, I believe, we ſhall find none more obvious than the fallacy of obſervation, ariſing from mens drawing deciſive concluſions from the limited number of experiments which they may have had it in their power to make. The irregularities of a patient are induſtriouſly concealed from his Phyſician: Pride, ſhame, fear, or other motives, often cauſe him to hide or miſrepreſent the true cauſe or nature of his complaint: If he is diſguſted with a nauſeous medicine, he will ſuppreſs its good effects, or perhaps unjuſtly aſcribe bad ones to it: Defects in the quality of the medicines, diet or air, and the complication of other diſeaſes, perhaps not always obvious; are all circumſtances that daily defeat attempts towards obſervation and experiment. When the moſt efficacious remedy is given,

given, it is a chance that one or other of these causes frustrates its effects; and if, by some of the unaccountable, though not uncommon, caprices of fortune, this should happen several times successively to a practitioner, he becomes disgusted, and (not having it in his power to know the real cause of his want of success) finds himself little disposed to risk his reputation, or expose himself to further disappointments, by persisting in the use of a remedy which has repaid him so ill. On the contrary, an effort of nature, or a concurrence of lucky circumstances, may occasion virtues to be attributed to a remedy which it never possessed. Every candid observer, I believe, will allow, that this is often a true history of the peculiar, and sometimes extraordinary, opinions of practitioners. As long as there is no public repository of facts, nor any channel by which they might be conveyed to the world, so long will medicine probably labour under the imperfections we have been endeavouring to describe; for I believe it will readily be acknowledged, that in the proportion that experiments increase in number, in the same proportion are they set out of the reach and influence of the above mentioned casualties.

It

It follows, therefore, that ſolid and invariable concluſions upon any ſubject, can only be drawn from a very large number of experiments or obſervations. If this poſition be true, and its utility univerſally acknowledged, nothing, I ſhould imagine, can be eaſier than the means of bringing it into effect. With reſpect to military hoſpitals, all that is requiſite is an order for that purpoſe: A yearly regiſter of any form could then be given in by each general and regimental hoſpital. As to the public hoſpitals and infirmaries, now ſo common in every part of Great Britain, it is to be ſuppoſed, that a zeal for the improvement of medicine, and humanity to their fellow creatures, would induce the heads of each to keep exact regiſters, and to make regular publications of them. Perhaps the mechanical regularity that ſuch inſtitutions would introduce into hoſpitals, might not be entirely void of its ſhare of advantage. Beſides the immenſe fund of obſervation which would be found in the military and civil hoſpitals, it is further to be hoped, that private practitioners, ſenſible of the advantages of ſuch an inſtitution, and having at length a known channel to convey their obſervations, would greatly enrich the

collection. It is almost needless to mention, how beneficial such a plan must be to gentlemen entering on the practice of medicine, who, often distracted by the contrariety of opinions, know not which to chuse, and are obliged, at last, to reap knowledge in the tedious and limited path of their own experience, encompassed by deceptions, and disgusted by disappointments. It must be observed, that in ascribing all the opposition of assertions, and peculiarity of opinions, to the single source of the fallacy of observation, we have considered men as not actuated by prejudice, obstinacy or caprice: That their practice is sometimes influenced by these motives, we must be obliged to acknowledge, and I hope it will appear as evident, that the public establishment of facts would greatly tend to check such improper influence. In such registers, the chief requisites seem to be, 1*st*, To throw the different means of cure employed into a certain number of methods, so that they may be conveniently compared together. 2*dly*, To record the principal circumstances in the cure, in so concise a manner, that they may not exceed the bounds of a table. How far these purposes are answered by the above tables, I will

will not pretend to determine: All that I will ſay concerning them is, that it was the firſt form that happened to occur; and that, though I have found it ſufficiently convenient, I am ſenſible that it is capable of great improvements. It will undoubtedly be objected by ſome, that the great variety in different caſes, requires a variety in the methods of treatment; and that this muſt be an inſurmountable objection to arranging the different methods of cure, and reducing them to ſo ſmall a number, that compariſons may be drawn between them. To this it may be anſwered, That though we now and then meet with irregular and complicated caſes, in which the method of cure muſt neceſſarily evade every attempt to reduce it to any head, yet theſe are by no means ſo common as might at firſt ſight be imagined; and as the practice of medicine is becoming every day more ſimple, the difficulties on this head muſt, of courſe, diminiſh. I am confident, that there are few chronic diſeaſes that might not be ſubjected to ſuch a plan; and, with reſpect to caſes that could not, with preciſion, be reduced to any of the general heads, they might be compriſed under the title of the *irregular caſes* of that diſeaſe.

Such

Such a plan I have, for my private ſatisfaction, adopted for ſome time paſt; and though I have never met with any thing of the kind, from which I might draw aſſiſtance or direction, I have not found ſuch difficulties in the proſecution, as could be ſaid to balance the advantages which I ſoon perceived I ſhould reap from it. I cannot help obſerving one circumſtance in its favour, which is, that the ſimple ſtatement of a ſet of facts, ſeems always to carry ſtronger conviction with it, than the moſt poſitive aſſertions of men even of the firſt repute: At the ſame time, it would be very unjuſt, to ſay, that this prejudice was always well founded. I ſhould imagine, that the collection of obſervations would be conducted with more regularity, and to much greater advantage, were all the hoſpitals of each kingdom put under the inſpection and direction of their reſpective Colleges of Phyſicians, ſo far as that the latter might be authoriſed to iſſue orders for the trial of ſuch remedies, and conducting of ſuch experiments as might ſeem moſt neceſſary to them, for the improvement of medicine. We might then hope to ſee the pharmacopœias quickly weeded of their uſeleſs articles, whilſt the virtues

tues of every truly valuable remedy would be publicly known, and eſtabliſhed upon the moſt inconteſtible footing: With regard to thoſe of an intermediate rank, we would at leaſt have the ſatisfaction of knowing exactly, what degree of dependence was to be put upon them; and could even, were it neceſſary, calculate to the greateſt nicety, what were the chances of ſucceſs. If tables were judiciouſly arranged and executed, I do not believe that even very numerous obſervations, given in a detail ſimilar to the above tables of intermittents or lues venerea, would exceed the bounds of publication; but if that ſhould be found to be the caſe, the reſult of the whole might alone be given, as is done at the end of each of theſe tables.

I ſhall, in the next place, make a very few remarks on the dyſentery, a diſeaſe which I have had conſiderable opportunities of ſeeing. From ſome accidents, needleſs to mention here, I have it in my power to give only a trifling number of caſes, and which, indeed, ſeem to point out little or nothing. As, therefore, the following aſſertions are not ſupported by facts, the reader is welcome to place what degree of confidence in them he pleaſes. In general, I ſhall obſerve,

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*1st*, That I have never been ſo lucky as to reap any advantage from opiates given by the mouth, though I have made long and repeated trials, and though I have given them, not only alone, but alſo combined with ipecacuanha, or with aſtringents, as in the pulvis e bolo compoſitus et ſpecies e ſcordio, rhubarb likewiſe being ſometimes added. Whilſt the ſtools were in any conſiderable number, and there were any remains of painful ſymptoms, I found ſmall doſes of ipecacuanha more effectual; and when the ſtate of the diſeaſe was different from this, I found aſtringents alone the beſt remedies, beginning with mild ones, and ending with tinctura corticis Peruviani. I have, however, experienced great benefit from ſtarch glyſters, with laudanum, their effects being often ſurpriſing, particularly when the rectum was principally affected, and the teneſmus violent: Their only uſe was, however, as far as I have been able to diſcern, in recent caſes. *2dly*, With reſpect to purgatives, I have thought rhubarb and calomel the beſt; for although cathartic ſalts ſometimes procure a more free, ſpeedy and plentiful evacuation, yet I have had ſuſpicions, that by their ſedative and refrigerant properties, they weaken

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the tone of the primæ viæ, and tend to prolong the diſeaſe, at leaſt when it is neceſſary to repeat them often. *3dly*, Although the vitrum ceratum antimonii is frequently of great ſervice in recent caſes, yet the moſt remarkable effects that I have experienced from it, were in thoſe of ſome ſtanding, where I have often ſeen it ſucceed after many other things had failed. It is true, that in perſons with red hair, and thin ſkins, it ſometimes operates rather roughly, but nevertheleſs ſafely, as far as I have ſeen, provided the doſe is managed with caution. I am much inclined to think, that it is liable to conſiderable uncertainty in ſtrength, from circumſtances not only in its preparation, but likewiſe in the preparation of the glaſs. To this, I imagine, muſt, in a great meaſure, be owing the different opinions that have been entertained of it at different times, and by different perſons; ſome ſpeaking of it as eaſy and ſafe in its operation, whilſt others look upon it as a rough and dangerous medicine. From what I have ſeen of it, I think it deſerves a ſtricter enquiry into its preparation and effects. *4thly*, I have found ſmall doſes of ipecacuanha of great uſe in the beginning of the dyſentery; but towards

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the end of the difeafe, and in chronic cafes, it certainly is not equally efficacious: I have often known it gripe; and when the ftools were reduced to the number of three or four in twenty-four hours, I have had reafon to believe that it retarded a perfect cure. *5thly*, With regard to aftringents, I have never had fuch a fufficiency, either in variety or quantity, as to enable me to make any experiments worth mentioning here. I can therefore only obferve, relative to the tincture of the bark, that however free the patient might be from gripes or tenefmus, the inteftines would feldom bear it, till the ftools were reduced to two or three in twenty-four hours. As perfons in this difeafe are very fubject to relapfes, on changing their diet, it is often neceffary to continue the tinctura corticis for fome days after the belly is become quite regular, in order to reftore the tone of the inteftines. *6thly*, The irregularities of patients in this difeafe, in which diet has the utmoft influence, render obfervations very difficult, and conclufions very doubtful.

In the following tables, I have arranged the different means of cure employed, under four feparate methods. In the firft table are found what I

have called the *regular cafes, viz.* thofe in which only one method was ufed throughout the courfe of the difeafe. The mark of each method is placed at the head of the column, and refers vertically. The figure of the number of days that the method was continued, refers horizontally. In the fecond table, I have placed what may be called the *comparative cafes, viz.* where, in the courfe of the difeafe, it was found neceffary to change the method. In this way, any means of cure that a practitioner may be defirous of trying, may be comprehended in a method, and a feparate column affigned to it, by which its fuccefs will foon be feen. By comparing the firft and fecond tables together, the fuccefs and failure of each method will be determined. In thefe tables, they were never noted as cured, until they were reduced to one ftool in twenty-four hours, unlefs when the perfon was accuftomed to have more whilft in health, which was very rare.

## *Register of twenty Cases of Dysentery.*

*Table* I. *Regular Cases.*

| November. December. January. | I. | II. | No. of days cure. | III. | IV. |
|---|---|---|---|---|---|
| | 2 | | 5 | | |
| | | 4 | 10 | 1 | 1 |
| | | | 15 | 3 | |
| | | | 20 | 1 | |
| | | | 25 | | |
| | | | 30 | 2 | |
| Total cured | 2 | 4 | | 7 | 1 |
| Average of the number of days required for a cure | 5 | $7\frac{1}{4}$ | | 18 | 7 |

*Table* II. *Irregular Cases.*

| Unsuccessful Method. | | Names. | Successful Method. | |
|---|---|---|---|---|
| Method. | Days used. | | Method. | Days used. |
| I. | 15 | Wood. | III. | 6 |
| II. | 22 | C. Brown. | III. | 6 |
| II. | 20 | Earp. | IV. | 5 |
| IV. | 16 | Frisby. | II. | 18 |
| IV. | 19 | Bobbit. | II. | 12 |
| IV. | 13 | Palmer. | II. | 24 |

*Remarks.*

Most of the patients in the second table were much afflicted with the disease, and subject to frequent relapses.

| | | |
|---|---|---|
| 1st Method, | Cured, | 0 |
| | Not cured, | 1 |
| 2d Method, | Cured, | 3 |
| | Not cured, | 2 |
| 3d Method, | Cured, | 2 |
| | Not cured, | 0 |
| 4th Method | Cured, | 1 |
| | Not cured, | 3 |

In the first table, the different methods placed at the head of the columns, refer perpendicularly; the number of days refers horizontally to both sides.

In the second table, the method which had failed is expressed in the first column, and the number of days that it had been used in the second; the patient's name is in the third column; the method that effected the cure in the fourth; and the number of days it was used in the fifth.

METHOD I. Emetics and cathartic ſalts, occaſionally repeated; ipecacuanha in ſmall doſes; aſtringents.

METHOD II. Emetic, ſometimes repeated; cathartic of rhubarb and calomel, repeated every third or fourth day; ipecacuanha; aſtringents.

METHOD III. Emetic; doſes of vitrum ceratum antimonii, every third or fourth day; ipecacuanha; aſtringents.

METHOD IV. Emetic; doſes of vitrum ceratum antimonii, every third or fourth day.

*N. B.* Anodyne injections were occaſionally uſed in all the four methods.

I cannot cloſe theſe remarks, without adding a few words on the method of arranging diſeaſes, which has, of late, deſervedly engaged the attention of the public. I have often thought, that if the claſſes and orders were entirely expunged from a noſologia methodica, and nothing but the genera and ſpecies retained, the book, though leſs ſyſtematical, would be equally uſeful, and, at the ſame time, contain fewer inconſiſtencies. Although the genera and the ſpecies muſt be of the higheſt utility, for giving accurate diſtinctions of diſeaſes, and affixing preciſe ideas to each term, yet I could never perceive, that the claſſes and orders ſerved any other purpoſe than to perplex the author, to cauſe him to be guilty of abſurdities, and to produce aſſemblages that never exiſted in nature,

ture. Without entering into the different methods that have been taken to clafs difeafes, or into all the difficulties that have occurred, in conftraining nature to put on a fyftematical regularity, for which fhe has given no foundation, and of which fhe is perhaps not capable, I will only obferve, in general, that although this fyftem fucceeds pretty well in fevers, and fome other difeafes, yet there are many that feem to elude every effort of the kind. The rickets, the jaundice, the fcrophula, and fome others, feem to be individuals, totally unconnected with every thing around them, and only reducible to the definition of a clafs or order, by catching at fome trivial circumftance in their phænomena. It muft undoubtedly be allowed, that method, in all fciences, conduces greatly to affift the operations of the mind; for which reafon, it may be very neceffary to fall upon fome form of bringing certain difeafes into one point of view. If, as has been alleged, there is not in all cafes a foundation in nature for affemblages, and that therefore we are obliged to form them in an arbitrary manner, we would certainly wifh to be directed by utility, in the choice of a method. The principles upon which fuch affemblages

 were

were to be made, might be, 1*ft*, Similarity in the nature and caufe of certain difeafes. 2*dly*, Similarity in their method of cure. 3*dly*, Similarity in their phænomena. With refpect to the firft, as long as our theories remain in the fame uncertain and fluctuating ftate in which they have been hitherto, it will be in vain to expect a fteadinefs and permanency from the fuperftructure, of which the foundation is deftitute. The fame objection lies againft the fecond. Whilft the phænomena of difeafes remain the fame, fo long will there be, in fome cafes, a foundation in nature for the third method. Difeafes that are moft liable to be confounded, being brought together, will more readily admit of a comparifon ; and, I believe, moft practitioners will admit, that, to diftinguifh and determine the difeafe, is often the moft intricate part of their office. It will perhaps be alleged, that the affociating of difeafes, by a fimilarity in their phænomena, is neither more nor lefs, than the method that is followed in every nofologia methodica. To this it may be anfwered, that in the claffes and orders, there are feveral of the fubdivifions fo far from being in danger of being miftaken for each other, that they do not

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agree in any circumſtance, except ſome trifling one, which is laid hold of merely becauſe it enables them to come under the general definition. If, inſtead of this, aſſemblages were formed of diſeaſes which reſembled each other, in ſeveral of their eſſential and moſt ſtriking ſymptoms, and when ſuch ſimilarity was wanting, no aſſemblage was attempted, the form would certainly be more agreeable to common ſenſe. I imagine, that ſuch aſſemblages ſhould rather be treated of under the ſame *chapter* or *ſection*, than comprehended under the title of a *claſs* or *order*; the latter implying a neceſſary connection in nature, whilſt the former has no ſuch import, and is not reſtricted to the ſame regularity. This propoſal may appear very trivial; but it ſhould always be remembered, that inaccuracy in words tends to produce inaccuracy in ideas, and that it is as eaſy to make uſe of a proper term as of an improper one.

I ſhall now finiſh theſe remarks with this apology, that if they are found to contain many defects, and if things are ſaid in them that may have been ſaid before, it is to be hoped that ſome allowance will be made for an author, who, for theſe laſt thirteen years, and ever ſince

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he left the ſchools of medicine, has been almoſt entirely cut off from all communication with the literary world.

III.

*A curious Caſe of a very remarkable and ſurpriſing Recovery in a Private Soldier of the ſecond Battalion, 73d Regiment, ſerving in Gibraltar, 1781,—attended with a Fracture of the Cranium, requiring the Trephine,—a compound Fracture of the lower Extremity, requiring amputation,—and ſeveral other wounds. By* Mr Andrew Cairncroſs, *Surgeon to the ſecond Battalion, 73d Regiment.*

DONALD Ross, aged thirty-nine years, was ſtanding ſentry in the King's lines, in the night of the 17th September 1781, during a very heavy canonade and bombardment, both from the Spaniſh lines, and alſo from their gun and mortar-boats in the bay, when he was knocked down by the wind of a thirteen inch ſhell, which fell cloſe by him: The ſhock and fear had ſuch an effect upon him, that he was rendered entirely incapable of making any efforts to ſave himſelf by running away: The fuze

fuze burnt only a few ſeconds, when the ſhell exploded. He was ſoon after taken up ſenſeleſs by ſome of the guards, in a miſerable mangled condition, by the ſplinters of the ſhell, and pieces of ſtone thrown about; and he was conveyed in a litter to the hoſpital of the 73d. When brought there, his appearance was ſo ſhocking, that I really was almoſt at a loſs what part of his body to pay attention to firſt; not apprehending that I could by any means whatever ſave the poor man's life: There was an wound on his forehead, juſt above the orbitar proceſs of the right eye, extending in a line upwards, and, with the point of my probe, I could plainly perceive the bone bare and fractured. There was a compound fracture of the left arm, a little above the inſertion of the deltoid muſcle; the bone was broken very obliquely; and lower down, about three or four fingers breadth above the elbow, there was a ſimple one. At times he was ſeized with ſevere ſpaſms, and during that period, the arms, in conſequence of the action of the muſcles, almoſt made an acute angle between the joint of the ſhoulder and elbow. There was alſo a compound fracture about the middle of the lower extremity of the ſame ſide, both

both bones broken very much, with ſeveral looſe ſplinters, and which ſuffered equally with his arm, during his former agitated ſtate. A great part of the ſkin and muſcles were lacerated from three of his fingers of the right hand, and the bone of the middle one was ſhattered to pieces. His body was contuſed all over; the ſcrotum and penis particularly ſo. The Britiſh regimental ſurgeons aſſiſted me; and indeed we were all of opinion, that the unfortunate man could not live, at all events, undergo ſo many operations as it appeared neceſſary to perform upon him. Unwilling, however, that any thing ſhould be left undone, as the wound on the forehead ſeemed more immediately to affect his life, I reſolved upon removing the integuments from that part of the os frontis, to examine the ſtate of the injury there. On laying the bone bare, I found a fracture running about an inch and a half upwards in the direction of the wound; and there was a particular *dint* in the lower part of the bone, which ſeemed to be the point ſtruck. No time was loſt; the trephine was immediately applied on the part; it cut well; the ſawing was complete, without injuring the dura mater, and was removed eaſily by the elevator.

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On examining the bone removed, the fracture did not extend through both tables, only the outer one; but a *thin lamina from the inner table was found wanting.* On wiping away a little extravafated blood from the furface of the dura mater, the bit of bone was found drove through the membranes into the brain, and fticking faft: It was immediately removed; on which a pretty confiderable hæmorrhage enfued, and was permitted to flow freely, fo as to take away about ten or twelve ounces; it was afterwards eafily ftopt by the application of dry lint. At that time, he had a fevere fpafm, which did not laft long, and began to know me and the people about him. The other gentlemen affifting, concurred in opinion with me, in deferring any other operation for the prefent, as the moft material injury had been attended to: His wounds were dreffed lightly, and a ftool was procured by a glyfter. On calling next morning, 18th September, to enquire if he was in life, to my furprife I found that he had flept well from the time I left him in the night, was perfectly fenfible, and not fuffering any great degree of pain; his pulfe was exceeding good, and not more than feventy. The pofition of his leg and

and arm being altered in the night, and not pleafing me, was put to rights. The faline draughts were prefcribed for him through the day, with thirty drops of the thebaic tincture in the evening, and a glyfter was defired to be repeated, if neceffary. 19th, Every thing went on well: He had been at ftool early in the evening, which was a work of much difficulty, on account of fo many wounds; had refted well during the night; was clear in his fenfes; and pulfe as before. 20th, A fmall alteration for the worfe; pulfe rather quicker, and fkin hottifh; has had a pretty good night's reft, and a loofe ftool. Ten grains of nitre were now added to each dofe of his faline medicine, with the opiate as before. 21ft, Upon the whole much as yefterday; complains of a flight headach; the tenfion upon his leg and arm exceedingly trifling; belly continues regularly open. 22d, No quicknefs to be perceived in his pulfe; headach, and heat of fkin, gone off; belly as before; his hand fmells pretty ftrong of fuppuration; and there is an oozing upon the eighteen-tailed bandage upon his leg. 23d, Much as yefterday; removed as much of the dreffings from his different wounds as would come away eafily; the

the lint adhering firmly to the dura mater, was not attempted to be removed; the dreſſings from his fingers and hand came moſtly off with eaſe: The lacerated teguments looked well, but there was no proſpect of ſaving the middle finger, as the bone of the third phalanx was ſhattered to pieces, up to its articulation with the metacarpus: The wound in the arm was almoſt cloſed, requiring only a bit of lint with a ſmall pledget of cerate above it; and the tailed bandage was frequently moiſtened with ſpirits and vinegar, to diſperſe the ecchymoſis which was conſiderable. The wound of the leg had but an indifferent aſpect; the diſcharge was bloody and ichorous, but without inflammation or tenſion upon the limb; and there was an utter impoſſibility of replacing the bones in an exact poſition, from ſome unforeſeen obſtacle: As there was no chance of cure here, but by amputation, or tedious ſuppuration, it was dreſſed in the moſt ſuperficial eaſy manner. He continued free from fever and pain, and every thing went on much as before. On the 26th, the ninth day from the accident, the lint came eaſily away from the dura mater, which looked well, and had begun to ſlough off. The wounds on his hand had

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alſo as good an appearance as could be expect-ed. As the diſcharge from the wound in the arm was ſo ſmall on the laſt dreſſing, the ban-dage was not now undone. From the above period, till the fourteenth day after the accident, the appearance of his different wounds continu-ed much the ſame, and the granulations from the ſurface of the brain had a healthy aſpect; but he then complained of an exceedingly acute pain in the middle of the fractured part of the limb, which made him ſtart frequently: On exa-mining it, a tenſion was found coming on faſt; the diſcharge was ſtill ichorous and bloody; his pulſe was getting up: In ſhort, I expected no-thing but gangrene and its conſequences to fol-low; and this now appeared to be the critical time to remove the limb entirely, as the only probable chance of ſaving the patient's life. On conſulting with my brother ſurgeons, they all agreed with me in opinion, that it was ſo; and as no time was to be loſt, it was determined to be done immediately. As ſoon as the neceſſary apparatus was got ready, that I might not di-ſturb my patient by placing him on a table, I took off the limb in the uſual place below the knee, whilſt he lay in bed in the hoſpital cradle.

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He bore the operation exceedingly well, all circumſtances conſidered, and ſoon after fell faſt aſleep. On diſſecting the amputated extremity, the tibia was found fractured quite through in a very oblique direction, the fibula into many pieces, and a pretty large ſplinter adhering to the periosteum, was wedged quite acroſs the interoſſeal muſcles, which in all probability was the obſtacle to the reduction of the limb. He was exceedingly free from pain during the remaining part of that day, and had a good night of it, with tolerable reſt: Next morning, I found him in good ſpirits, without any quickneſs of pulſe; the appearance of his head and hand as before. The opiate was repeated in the evening, and every thing continued to go on as well as could be wiſhed. On the fifth day from the amputation, the ſuppuration being eſtabliſhed, the dreſſings were removed, the ſtump looked well, granulations were ſhooting faſt out upon the ends of both bones, and there was next to no tenſion upon the ſkin, of which a conſiderable portion had been ſaved. The poor man was now exceedingly happy; ſaid, he was ſure he would recover, but wiſhed his finger to be taken off alſo, as he could not bear to look at it. Every day afterwards added to

his recovery, all his ſores looking well, and the ſpace in the cranium filling up faſt. On the tenth day after the amputation, finding every thing ſo favourable, and that nothing but the removal of the middle finger prevented his recovery, which gave a good deal of pain all up the arm, and was very offenſive to the ſmell, I yielded to his ſolicitation, and removed it at the articulation of the metacarpus. The inflammation ſubſequent was inconſiderable, and in three weeks it was perfectly cured. The other ſores all kept pace in their cure, without any further material occurrence; and in ten weeks from the firſt date of the accident, he was perfectly well, but weakly.

## IV.

*Obſervations on Canine Madneſs, by Dr* Houlſton *of Liverpool, communicated to Dr* Duncan.

WHEN men of undoubted profeſſional knowledge, candour, and humanity, ſtand forth to deſtroy the public confidence, in a matter of ſuch moment as a preventative for madneſs, this can only be ſuppoſed to ariſe from

a thorough conviction of the inefficacy of the means propofed, and an ardent zeal for the caufe of truth. Well aware that they are hereby depriving numbers of that great cordial Hope, and reducing them to a ftate of horror and apprehenfions, little fhort of that which they wifh to guard againft, nothing but a defire of obviating the fatal confequences of an ill grounded confidence, and of exciting the endeavours of men of fcience, to difcover more certain remedies than are yet known, could induce them to take fuch a ftep.

Dr Fothergill, in the cafe of Mr Bellamy, and Dr Vaughan of Leicefter, in three cafes which he has publifhed, have fully proved, that all the methods recommended for that end, are infufficient for the cure of the hydrophobia, when once commenced. The patients all died in the courfe of one or two days from the appearance of this fymptom, notwithftanding the moft attentive and judicious treatment. From thefe cafes, they conclude, that no dependence is, in reality, to be placed on the Ormfkirk medicine, before fo much confided in; and they have each declared their opinion, how doubtful and uncertain, not to fay ufelefs, are all the other

other methods hitherto propoſed, to prevent the ill conſequences ſometimes reſulting from the bite of mad animals. The attempt, then, to recommend and enforce a plan of treatment, agreeable to reaſon, and ſupported by experiment, muſt meet with approbation, and may be productive of eſſential ſervice to ſociety. May it not very eaſily happen, that a remedy, the gradual exhibition of which may prevent the attack, would prove wholly inſufficient for the cure of the hydrophobia? Or is the inference juſt, that becauſe the action of mercurials, applied for three or four days at moſt, will not cure the diſeaſe in its laſt haſty ſtage, the ſame remedy would have been of no avail in the interval between the bite and the attack, which was (in theſe caſes) of one, three, and nine months? During that period, a gradual and ſufficient action of the mercury might have been excited; whereas, when the hydrophobia has appeared, there is ſcarcely ever time for any ſuch effect. There is ſome reaſon to conclude, too, that under certain diſeaſes, the ſyſtem is leſs capable of being acted upon by mercury, which, though applied in large quantities, ſeems then not to produce its uſual effects. I mean

not

not to dwell upon the reafonablenefs of a practice, in which the action of the remedy is principally determined to the part where the virus chiefly exerts its baneful powers, *viz.* the falivary glands; nor yet upon the authority of the late Dr James, and the celebrated Sauvages, who have largely infifted on the beneficial effects of mercury, to prevent the dangerous confequences of the bite of mad animals. Not to fwell this paper to an improper bulk, I purpofe only to give a brief account of a pamphlet, publifhed at Paris by order of government, entitled, "Methode éprouvée pour le Traitément de la Rage," wherein we are informed of the fuccefs of a mode of treatment, of which mercurial inunctions is the bafis and moft effential part, laid down by Monf. de Laffone, firft Phyfician to the King of France, and tried on eleven out of fifteen perfons dreadfully bit and torn by a mad wolf, on the 8th and 9th of December 1775, within twenty-four hours of each other. Three of thefe unhappy people, trufting to powdered oyfter-fhells, and fimilar remedies of no ufe, were not fubjected to this treatment, and died in a few days, raving mad; as did alfo a young woman, who did not apply for relief till two

 days

days before ſhe died, and after the ſymptoms of hydrophobia had commenced. The remaining eleven were, by the States of Macon, near which place the accident happened, put under the care of a Phyſician of Cluny, Monſ. Blaiſe; and the account he gives of the ſucceſs attending the method of treatment purſued, of which a ſummary is ſubjoined, is as follows: One man, who, for ten days, exactly followed the plan laid down, whoſe wounds, though very large, ſuppurated well, and were in a good ſtate, and in whom the mercury ſeemed to begin to act, became melancholy, was ſeized with a horror and dread of liquids, and died within forty-eight hours afterwards, though placidly in his ſenſes, and without being convulſed. A ſecond, whoſe mouth and gums had been ſlightly affected by the mercury, which he uſed near a month, grew delirious and furious, and after experiencing the ſymptoms of hydrophobia for two days, died comatous. This man, however, it was found, had privately drank very large quantities of wine, for three days together, preceding his delirium; and, it is ſuppoſed, this contributed greatly to his death. A third, a boy, who continued the uſe of the mercurial frictions and antiſpaſmodic medicines

medicines for eighteen days, and was doing well, being removed home by his friends, died there three weeks after, as is believed, only from the wound in his head not being taken due care of, and not from madneſs, as he drank freely an hour before he died. The remaining eight recovered, although one of them, during the courſe, became ſad and melancholy, and another, a woman, delivered of a child during the time, manifeſted an averſion to liquids. Salivation took place in moſt of them, upon which, gradually excited, (though they endeavour to guard againſt it by repeated purging), depends, moſt probably, in ſuch caſes, the only rational hope of ſecurity from canine madneſs. Dr Blaiſe adds, That "the treatment was conti-"nued, in all, above a month in the eight who "got well *, ſix of whom had been grievouſly



* In the Hiſtory of the Royal Society of Medicine at Paris, Vol. II. we are informed by Monſ. Blaiſe, that of theſe eight, one died with Hydrophobia ſix weeks after he was diſcharged apparently well; but it appears, that four days before this attacked him, he had paſſed his arm down the throat of an ox, believed to be mad, though the man is not ſaid to have been bit by it. Monſ. Blaiſe alſo mentions his having ſince ſucceſsfully treated two other children in this method; whereas a third, bit by the ſame dog, and not ſo treated, died mad.

" bit in parts not covered with the clothes; " and that moſt of them experienced, nearly at " the ſame time, ſymptoms of nervous affec- " tions, which might be attributed to the virus " too much attenuated and weakened by the re- " medies, to produce a manifeſt acceſſion of hy- " drophobia." He concludes with theſe judicious remarks: " It is moſt certain, that the remedies " we have employed have been very ſucceſsful; " but they would have been much more ſo, had " they been uſed early; and particularly, if al- " moſt immediately after the bite, thoſe exter- " nal means had been made uſe of, which ap- " pear to me indiſpenſibly neceſſary, *viz.* deep " ſcarifications, cutting away the lacerated parts, " and thoſe adjoining to the wounds, the cau- " tery, applying cupping-glaſſes, and eſtabliſh- " ing copious ſuppuration, for a long time, in " the part bit; becauſe it ſometimes happens, " that the ſaliva is lodged in the cellular mem- " brane, where it remains, as it were, fixed and " inert, till, brought into action by ſome cauſe, " it enters into the circulation, affects the nerves, " and produces the train of ſymptoms of this " moſt terrible of diſeaſes." It now remains only to give the mode of treatment propoſed, which

which I wifh to do as concifely as I can confiftently. After opening the body by laxative glyfters, bleed once or twice, efpecially if there be any fymptom of madnefs, or any wildnefs in the looks; ufe, morning and evening, for an hour, a warm foot-bath, or, if it can be had, a warm bath; wafh the wound repeatedly and long in warm water, in which common falt, or rather fal ammoniac, is plentifully diffolved; making, at the fame time, deep fcarifications, cutting away lacerated parts, or, which is preferable, (when it is an animal which is bit), applying the actual cautery: This done, rub a dram of mercurial ointment lightly round about the wound, which may be dreffed twice a-day, with bafilicon or digeftive, wafhing it each time with the falt and water. The mercurial ointment, however, is only to be applied once in twenty-four hours, and in the above dofe. The body muft be daily kept open by glyfters, to which add one fpoonful of honey, and two of vinegar; every four or five days, a gentle purgative is given, to prevent falivation. To excite vomiting once or twice, will be of fervice, efpecially at the firft, if there be frequent naufea or inclination to vomit. Once, or if no inconvenience

convenience follows in its ufe, twice a-day, morning and evening, give a fpoonful of wine, with twenty or twenty-five drops eau de luce, to promote a gentle fweat. Let the patient take every day four grains of camphor, two grains of mufk, and fix grains of nitre, made into a bolus, with honey. In cafe of great reftleffnefs and want of fleep, give, in moderate dofe, an opiate; but do not repeat it feveral fucceffive days. The patient ought freely to ufe diluting drinks, mixed with honey and vinegar; but fhould the hydrophobia already have come on, thefe and the foregoing medicines may be administered in glyfters. The food fhould confift chiefly of vegetables; but milk is to be avoided. This mode of treatment muft be continued till the wound is healed firmly; a month at leaft, and longer when the wounds have been confiderable, or any fymptoms have manifefted themfelves. Should the wounds put on a bad appearance, give the bark in ftrong decoction, as alfo when great weaknefs and languor remain. Ufeful animals, when bit, may be treated nearly in the fame manner, only a triple quantity of the mercurial ointment fhould be employed. They fhould be kept up from mixing

ing with others; and, on the appearance of any ſymptoms of madneſs, they ſhould be immediately deſtroyed; as ought alſo dogs, and animals of leſs uſe, without heſitation. Thus far Dr De Laſſone. Several ſtrong proofs of the ſucceſs attending the uſe of mercurial friction, are inſerted in the ſecond volume of the Memoirs of the Paris Royal Society of Medicine, of which the inſtances given by Mr Odoardi deſerve particularly to be noticed. Of nine perſons bit by a mad wolf, one (treated by another ſurgeon, but not with mercurial frictions) died of the hydrophobia the forty-ſixth day after. The eight others, who uſed this remedy under that gentleman's care, all did well. He mentions ſeveral inſtances which have fallen under his care or notice, in which mercurial frictions on the wounded part have preſerved the patient from all danger, ſometimes without producing ſalivation. Notwithſtanding this ſucceſs, however, he alſo eſteems it the ſureſt method to excite a ſlight degree of ſalivation; and perhaps this will be found to anſwer beſt, when attempted ſoon after the accident, and brought about not too haſtily.

V.

## V.

*History of a Case of Rheumatism, cured by Electricity. By Dr* Simon Lanphier, *Physician, Waterford.*

M. A. aged fifty-eight, an woolcomber, in the month of December 1778, was affected with a coldness and shivering, succeeded by heat and partial sweats, pains of the shoulders, extending to the elbows, wrists, and fingers, attended occasionally with redness and swelling. His hips, thighs, and legs, were soon attacked in the same manner, but were particularly painful at the joints of the knees and ankles, appetite impaired, thirst moderate, bowels tolerably regular. By the advice of his friends, he had recourse to a variety of matters, particularly warm porter, brandy and water, and sulphur, all with a view of promoting sweat. After the ineffectual use of these for some days, he applied to the late Dr Backas, an eminent Physician of this place, who ordered him turpentine drops, with some other medicines; but, in consequence of the sudden death of that gentleman, he did not

not experience the benefit of his advice that he otherwise might have expected.

He sent for me on the 4th of August 1779, at eight months from the commencement of his complaint. He was confined to bed, could not sit up, or put on his clothes without assistance. He then complained of pains in his shoulders, elbows, wrists and fingers; pain in the small of the back, extending occasionally to both hips; considerable swelling of the knees and ankles, attended with excruciating torture; was easier lying in bed than in any other position; pains not aggravated by additional heat; appetite extremely delicate, in consequence, as he supposed, of having taken garlick for some days; no material thirst, except at intervals; bowels regular; pulse rather frequent, but not full or hard. After premising the warm bath, and a strict attention to vegetable diet, I ordered him, on the 5th of August, thirty grains of Dover's powder; at the same time, directing that he should lie in blankets, and forward sweating, by keeping quiet, taking occasionally draughts of white-wine, whey; and every second hour a julep, with spiritus mindereri.

6th, Sweated profusely from ten in the morning until six in the evening; pains easier for

some

ſome hours whilſt ſweating, but returned as violent as before. 8th, The medicine repeated, and with nearly the ſame effects. On the 10th, he was ordered a mixture with equal parts of elixir guaiacinum volatile, ſimple ſyrup, and mucilage of gum arabic, a large ſpoonful of which to be taken night and morning, waſhed down with wine-whey. This promoted ſweating, which was not a little increaſed by the addition of ſome volatile ſpirit of ſal ammoniac. The pained parts were gently rubbed, morning and night, with camphorated oil and ſpiritus cornu cervi. In the courſe of ten days, he found himſelf better, was able to get out of bed, and aſſiſt in putting on his clothes: The pains, without any obvious cauſe, returned, and were extremely troubleſome. Bliſtering plaſters were applied to the ſhoulders, with directions to remove them as ſoon as they became painful; next to the elbows and knees, which experienced great relief from their application. The medicine was ſtill continued. Notwithſtanding its uſe, and the occaſional application of bliſters to the parts principally affected, a ſtrict attention to warmth and regularity, on the 5th of September following, his recovery ſeemed very doubtful; I was therefore

therefore determined to try what effect might be produced by electricity, having given him direction to lay aside the elixir guaiacinum.

On the 10th of same month, a few slight strokes were sent through the parts most affected, which were the shoulders, elbows, wrists, and joints of the fingers; the shocks were repeated three times weekly, but seemed rather to aggravate his disease. A temporary relief was experienced during the use of the application; but matters appeared worse at the succeeding visit. However, as I have known the same effects ensue upon first using electricity, I determined to persevere and not repeat the operations oftner; but, to put it to a greater extent in point of strength and number of shocks, I also insulated him, and by that means took large sparks from the pained parts; at length the swellings began gradually to disappear, and were even sensibly less in any one part, when electrified for some minutes, either by drawing sparks from the part, or sending small shocks through it. Immediately after the use of electricity, he could move much better than before, and acquired so much strength as to walk tolerably well without any assistance.

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I ſhould have obſerved, that for many days on his firſt viſiting me, he was obliged to be attended by two aſſiſtants. In the month of February 1780, he was able to comb a ball of wool, which he had not done for near fifteen months before. The electricity was continued until the April following, when he found himſelf well in every reſpect; the pains removed, and natural heat of the parts perfectly reſtored. In order to prevent a relapſe, I ordered him to uſe the cold bath, which he began in June, and continued until Auguſt. He is now extremely well, and works at his buſineſs as uſual.

I have lately had frequent opportunities of trying electricity in old rheumatic complaints, particularly where the pain was confined to one or two parts, and have always experienced the greateſt advantage from its uſe. The above caſe ſhews the good effects of electricity in a moſt troubleſome and painful diſeaſe, and, at the ſame time, indicates, that much may be expected from it, even where internal remedies have proved ineffectual. A chronic rheumatiſm, which is conſidered as being in a great meaſure a local complaint, I am ſatisfied, will frequently be removed by its uſe.

VI.

## VI.

*The History of a Case, where the Pharynx was wounded through the Muscles and Membranes which connect the Larynx and Os Hyoides, without proving fatal. By the late* Dennis Ryan, M.D. *Communicated in a Letter to* Samuel-Foart Simmons, M. D. F. R. S. *Physician in London, and by him to Dr* Duncan.

A Negro, named Harry, who lived as watchman on Winchester estate, near this place, was surprised in the night, about the end of last February, by two negroes, with an intention to put him to death. He is about thirty years of age, and of a slender habit of body, with a remarkably long neck; and, his being sickly for some time, rendered all the resistance he could make of little effect. From the present appearance, they seem to have made several thrusts or incisions with a knife, between the upper edge of the right side of the thyroid cartilage and the os hyoides. One incision was made transversely. It began below, and opposite the middle of the base of the os hyoides, and extended almost as far as the right carotid.

It ſeems to have totally divided the ſterno-hyoidæus and hyothyroidæus muſcles. This inciſion was croſſed by another, which was made in a longitudinal direction. Where both meet, there is a conſiderable orifice, into which one might eaſily introduce the top of the little finger, three weeks after the accident happened, when I firſt ſaw him. And, upon my removing the dreſſing, which conſiſted of a coarſe rag, and ſome oat-meal and water, there was diſcharged a great quantity of mucus through the wound, the edges of which had now become callous all round. On his attempting to drink ſome water, the moſt part of it ruſhed out by the orifice; but when it was cloſely ſtopped up, by the application of another's hand, he ſwallowed pretty freely, though not without ſome coughing. It is always neceſſary to make a preſſure of this kind, when he takes any food. I had his mouth and noſtrils cloſed for ſome time, but he breathed through the wound. The orifice has of late become ſo ſmall, that it has been thought proper to enlarge it by an inciſion, to allow a free paſſage for the mucus, which is diſcharged from it very copiouſly. When he holds up his chin a little, the thyroid cartilage is about

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an inch and a half diſtant from the baſe of the os hyoides, and about three-fourths of an inch, when he attempts to ſwallow any thing. The attack was made on him in the beginning of the night, and he lay till morning expoſed to the night air. He was then found, with a piece of blanket wrapped about his neck. Thoſe who firſt ſaw him, ſay, that the loſs of blood he ſuſtained was very trifling. They gave him ſome drink, but it all came out through the wound; and they, as well as he himſelf, declare, that till the thirteenth day after the attack, he ſwallowed nothing whatſoever. Hence he was almoſt totally exhauſted, and his ſituation thought ſo deſperate, that recourſe was had to none of the means uſually employed in ſuch circumſtances, in order to ſupport life. From the time he began to ſwallow, he has gradually recovered ſome ſtrength, and he can now eat plantains, the chief fare of negroes. He walks about tolerably well; and though he breathes in general with ſome difficulty, he will probably live for ſome months, and afford a ſtriking proof of the powerful efforts of nature, without the aſſiſtance of art, even in the moſt dangerous circumſtances.

## VII.

*Account of the successful Operation of the Trepan on the left Temple, with the Extraction of a Splinter of Stone, penetrating the Dura Mater. By* Mr George Borthwick, *Surgeon, 14th Regiment Light Dragoons.*

A Dragoon of the 14th regiment received a blow from a sharp stone on his left temple, which gave him a considerable wound, and knocked him down. He soon recovered himself, and walked without assistance to his barrack, which was a quarter of a mile from the place where he met with the accident. On examining him, about an hour after he received the blow, I discovered a wound in the teguments and temporal muscles, of two inches in length, the wound being in the direction of the fibres of that muscle; and, by my finger, without the help of a probe, could plainly discover a fracture of more than an inch in length, with a considerable depression in the temporal process of the os frontis. The course of the fracture was in the direction of the fibres of the temporal muscle.

Finding

Finding matters thus circumſtanced, I removed ſuch a portion of the ſkin, tendinous aponeuroſis, and temporal muſcle, as I reckoned would be neceſſary for allowing the crown of a middle ſized trepan to be applied; and having removed a ſufficient portion of the pericranium, to enable me to examine fully the extent and nature of the fracture and depreſſion, and to allow the operation to be performed, I diſcovered a fracture of near two inches in length, and the depreſſion ſo very conſiderable, that the end of a common ſized blunt-pointed probe could eaſily be introduced obliquely through the fracture, under the cranium. This being done, I immediately took out a circle of bone with the trepan, which enabled me to remove entirely the depreſſed fragments of bone, that amounted to four in number. There was no extravaſated blood found on the ſurface of the dura mater, (though this membrane was entirely ſeparated from that portion of the ſkull which conſtituted the depreſſed fragments); but on removing the circle of bone with the trepan, I diſcovered a ſmall wedge-like ſtone, thicker than a ſhilling, of the ſize of a ſilver three-penny piece, that penetrated the dura mater obliquely oppoſite to the

 fracture,

fracture, and had insinuated itself under that part of this membrane, from whence the circle of bone was removed, and had, no doubt, been broken off from the stone with which the blow was given.

During the scalping, several branches of the temporal artery were necessarily divided, which made the needle and ligature to be frequently used, and the removal of a portion of the temporal muscle, particularly in this tumefied state, made the operation have a more formidable appearance, than in these parts of the cranium where it is more frequently performed.

After the operation, the wound was dressed in the usual manner, and the patient recovered, without any bad symptoms supervening, and was perfectly well in ten weeks.

I think it proper to add, that in a few hours after the operation, the patient complained of a great stiffness in the under jaw of that side; but it did not increase to such a degree as to prevent his being able to admit a table-spoon into his mouth. It continued, however, for the space of a week, and went of. If the operation had been performed in any other part of the cranium, I should have been alarmed at the stiff-

ness

nefs of the jaw; but in this cafe, I attributed it to the inflamed and fwelled ftate of mufcular fibres of the temporal mufcle; and the event fhewed, that as foon as a proper fuppuration had time to come on, the inflammation, and, of courfe, the fwelling, ceafed, and the ftiffnefs was at an end.

Was this event the fooner brought about, from his having taken every night three grains of opium, during the firft fortnight after the operation?

## VIII.

*The Hiftory of a Cafe of Hydrocephalus, fuccefsfully treated by the Ufe of Mercury. By Dr* Alexander Eafon, *Phyfician, Manchefter.*

ON the 12th of September 1781, I was defired to vifit John Norman, a child of two years and a quarter old. His mother informed me, he had been in an indifferent ftate of health for fome time paft; and that, during the three laft weeks, he had convulfive fits fo frequent, and often of an hour's continuance, both by day and night, that fhe hourly expect-

ed his death. I found him lying on a pillow, ſupported by his mother's knees, quite ſtupid; his eyes ſometimes open, but more frequently half ſhut; the pupils greatly dilated, and incapable of directing them to any object. Being unable to ſupport his head, it fell to either ſhoulder, or behind, according to its inclination; the ſize nearly equalled that of an adult; the fontanelle open, the ſutures cloſed, and I think the bones were thicker than uſual; the back part of the head was very large, in proportion to the fore part. When he was moved, or held up, he was generally ſeized with a fit. A cough of ſome months ſtanding was now more troubleſome, and reſembled a convulſive one. His feet were cold, and frequently had an œdematous appearance. His pulſe was quick, ſmall, and irregular. He was greatly emaciated, and the very ſmall quantity of food he took was frequently thrown up.

From theſe ſymptoms, I had very little doubt that his diſeaſe was an hydrocephalus internus, and no hopes of his recovery, under ſuch circumſtances, could be entertained

As the infant was in ſo low a ſtate, I thought it moſt prudent to proceed by ſlow degrees in the

the ufe of mercurial medicines. At firft, he took a few grains of rhubarb, then one grain of calomel every night at bed-time, and on the fourth day, a few grains of rhubarb, as at firft. After an interval of two days, he took three grains of calomel every night; but during the firft week his fymptoms grew worfe; the parietal bones plainly appeared larger; the head meafured more in circumference, and the fits continued as ufual. He then took the calomel every night, with a tea-fpoonful of oxymel of fquills, twice or three times a-day. This gave him about two ftools in twenty-four hours. No great alteration happened, till towards the end of the third week; from that time the pupils of his eyes began to contract; he took notice of feveral objects, and eat rather more food, which was feldomer thrown up. His water, when any could be faved, was of an amber colour, and let fall a white fediment. His fits were not altogether fo violent, nor fo frequent, and his head meafured lefs in circumference.

I mentioned this cafe from time to time to my friend Dr Percival, who fuggefted to me the advantages of mercurial frictions, along with the ufe of the calomel. As the infant was ftronger,

ſtronger, and appearances more favourable, I ordered fifteen grains of the ſtrong mercurial ointment to be rubbed in, three times every day, and that he ſhould take the calomel at night as uſual. This anſwered beyond expectation, and his recovery was rapid. In about five or ſix days, after the firſt rubbing with the ointment, the mucus was diſcharged from his noſe, which, from the commencement of his illneſs, had been entirely dry. His urine was more in quantity, ſtill letting fall a white ſediment; he could hold his head in an erect poſture, during the fifth week; and his fits, gradually declining, on the 20th October entirely ceaſed, except a ſlight return on the evening of the 24th.

Towards the end of October, he could walk with help, and now walks by himſelf; is lively; his complexion is clear; gains ſtrength and fleſh daily; eats moderately; the fontanelle almoſt cloſed; ſleeps ſound, and his head much reduced in ſize, in ſo much that ſome of his night-caps, which were too ſmall, and even thoſe of his younger brother, ſlip on with eaſe. He continued the uſe of his medicines for ſome time, as he found no inconvenience from them, for

for the mercury never affected his mouth, ſalivary glands, or bowels, which have been in a proper ſtate, and his urine without any white ſediment. At preſent, he takes a ſingle grain of calomel every ſecond night, which I propoſe to continue for ſome time longer.

## IX.

*Hiſtories of two Caſes: The Diſcharge of a large calcareous Concretion, and the Extraction of the Bones of a Fœtus by the Rectum. By* Dr Samuel Fitzgerald, *Phyſician at Mullingar.*

A LADY of rank in this neighbourhood, whoſe name delicacy forbids to mention, had laboured for eighteen months under the moſt excruciating torture and pains in the hypogaſtric region, particularly towards the back and os ſacrum. For the laſt three months of her illneſs, ſhe was ſo reduced for want of food and ſleep, that ſhe could not leave her bed, except when taken up to the tepid baths, in which only ſhe enjoyed any tolerable degree of eaſe. In ſhort, life now had become a burden, and death deſirable to her and all around her. In

this

this deplorable ſituation, upon the diſcharge of an emollient anodyne glyſter, ſhe fortunately with it paſſed from the rectum a large hard ball of an oval figure, exceeding in ſize an ordinary orange, and ſo ſolid that nothing leſs than the ſtroke of a hammer could break it. It was of a dark cinneritious colour, and of a calcareous quality in ſubſtance, weighing eight ounces and three drams. A total liberation from pain immediately followed its expulſion, and, in a very ſhort time, the hectic and other alarming ſymptoms vaniſhed, and the lady is now perfectly re-eſtabliſhed in health.

The other caſe is that of Mary Dardis, a native of this town, who, on the firſt day of June, after the uſual term of geſtation, *viz.* nine months from her ſecond marriage, was taken ill of labour-pains; but theſe being rather tedious, and cold, as the midwife termed it, I was ſent for; and, upon examining the ſtate of the uterus, I could not poſſibly find its orifice, though, at the ſame time, I clearly perceived a round hard bulk through the teguments, which I concluded was the head. In this ſituation, I deſired ſhe might be properly ſupported, and patiently

ently wait the increafe of more efficacious pains, and then to apprife me of it. For three days I heard nothing from her, and then calling at her place of refidence, I found her engaged at her ordinary bufinefs, quite well, but uneafy at not having been delivered. I told her the right time was not yet come; that when it did, all would be well, and not to fret herfelf on that account.

On the 10th of February next enfuing, being nine months and ten days, her hufband, at midnight, called upon me, to let me know fhe was in high labour. Curiofity, as well as humanity, induced me to vifit her; and, to my great furprife, the firft object that prefented to the touch was the foot and leg of the fkeleton hanging forth from the rectum. This, by merely handling it, readily feparated at the articulation of the knee; and, as no entrance to the womb through the vagina was yet to be found, I was reduced to the painful neceffity of extracting the entire fkeleton, bone after bone, through the anus. This loathfome manœuvre continued for the beft part of three fucceffive days; for the intolerable ftench, and difficult accefs, were fo great, that I could not bear it longer than an hour at any one time. I fuppofe the obliquity of the womb's

womb's elevation was the caufe of this very prepofterous birth, that its orifice had reached that part of the rectum through which the heel of the fkeleton muft have gradually found its paffage; for fhe had uninterrupted pains in the lower part of her back during the laft three months, which fhe called a dry colic. By cleanfing vulnerary injections, and a liberal ufe of the Peruvian bark, the woman is reftored to health. Though this feems fcarce credible, yet it is literally true, as may be attefted by a furgeon I was obliged to call in, to affift now and then in the delivery.

## X.

*The Hiftory of a Cafe of Hydrocephalus fuccefsfully treated by Mercury. By* Dr Thomas Aery, *Phyfician, Whitehaven.*

JANUARY 4. 1780, I was called to Mr ——, aged nine years, of rather a pale complexion and relaxed habit. He had been feized, a week before, with an acute pain of the whole head; the teguments of it were fore to the touch; he complained of naufea, anorexia, erratic pains of the extremities and fide; thirft in the afternoon; tongue

tongue clear; pulſe rather frequent. I gave him a cathartic, an emetic, and one doſe of the pulvis ſudorificus of the Edinburgh Pharmacopœa; bliſters behind the ears were kept open with the mild epiſpaſtic ointment of the Edinburgh Pharmacopœa; and, in the interval of the evacuations, the ſaline mixture, with volatile ſal ammoniac impregnated with lemon-juice, and drops of antimonial wine and thebaic tincture; afterwards drops of dulcified ſpirit of nitre, which were followed by an infuſion of bark with valerian, a ſolution of corroſive ſublimate mercury, and volatile tincture of guaiac, without any apparent effect, although given in large doſes, excepting that the anorexia left him after the emetic, which operated but little.

20th, Light painful to the eyes, the pupil of the eyes much dilated, ſtrabiſmus, and cannot diſtinguiſh capital letters in print; double viſion; ſpeaks very unuſually ſlow; ſtupor, and will not riſe out of bed; looks as full as uſual in the face, but the extremities are conſiderably emaciated; appetite good, or eats food greedily, and ſleeps well; little thirſt; abdomen rather tenſe and hard; ſtools and pulſe regular.

27th,

27th, Symptoms much the ſame. Mr Hamilton, an ingenious ſurgeon and apothecary, who attended this patient with me, now aſked me, "If I did not think the diſeaſe to be the "hydrocephalus internus?" I anſwered in the affirmative, and that I propoſed to put him under a courſe of mercury, as recommended by Drs Dobſon and Percival, and alſo as I had for many years found mercury uſeful when given as an aperient and deobſtruent in dropſies.

February 1. he began with taking a grain of calomel every night at bed-time, and with having a ſcruple of ſtrong mercurial ointment rubbed upon his legs, which were afterwards covered with a flannel; the regimen uſual to raiſe a gentle ſalivation, was alſo directed.

10th, Pain of head increaſed.

11th, Vomiting came on laſt night, and continues, but ſoon ſtopped with taking the ſaline mixture with thebaic tincture; complained of his tongue being very ſore; I found it with a little aphthous redneſs round the ſides of it, but no ſpitting.

22d, Said he was better for the firſt time.

24th, Sat up, and could read ſmall print, and continues well at this time.

From

From February 1. to March 8. he took calomel. gr. xlii. and uſed of ung. cœrul. fort. unc. iii. & ſcrup. iv. without producing any ſalivation, or any apparent evacuation, excepting the night and day that he vomited a little. In Dr Dobſon's and Percival's caſes, the mercury ſalivated. It is, however, a well known fact, that, in the lues venerea, we are ſometimes diſappointed in raiſing a ſalivation, but not from thence in the cure of the diſeaſe, only a greater quantity of mercury is in general neceſſary, as directed by Dr Aſtruc. Why may not mercury ſometimes cure this diſeaſe, without ſalivating, as well as it does the lues venerea? and may it not here have performed the cure, by opening the obſtructed mouths of the abſorbent veſſels, and ſo rendering them capable again of abſorbing the extravaſated water?

## XI.

*Observations and Experiments on the Effects of different Anthelmintics applied to Earth-worms, communicated to Dr* Duncan *in a Letter from Dr* Thomas Fowler, *Physician at Stafford.*

WHEN I had the honour of being an ordinary member of the Royal Medical Society of Edinburgh, and it came to my turn to write papers for the Society, the following question was assigned me, at my own request, as a subject for one of them, *viz.* What vermifuges are the most eligible from their effects on earth-worms? In consequence of this, I made a great number of experiments on earth-worms, and made them the basis of a paper which was circulated, read, and debated upon, in due course, agreeable to the rules of the Society.

Since that time, from a consideration of the frequent occurrence of worms as a cause of disease, and the great difficulty we often find in our attempts to eradicate them, I have been led to hope, that, by a repetition of the experiments, in order to render the effects more accurate, I might

might ſuggeſt ſome practical hints to the Faculty by their publication. For this purpoſe, I have made a conſiderable additional number of experiments with moſt of the ſame vermifuges before employed, and have contracted the reſult of the whole into a conciſe tabular view, by which means their obvious effects and comparative merits will be much more readily examined and underſtood. Moreover, in order to bring this paper within the compaſs of an article not too large for admiſſion into your uſeful Medical Commentaries, I have left out the greateſt part of my former introduction, and have entirely omitted the medical remarks upon all the experiments, excepting two, leaving it to the Gentlemen of the Faculty to draw their own concluſions from the facts.

I ſhould have been glad to have made experiments on human worms, but that was impoſſible; for if a ſufficient number could have been obtained alive, on being removed from their natural habitation in the human body, and expoſed to the open air, the whole of them would almoſt immediately have died.

Earth-worms, it is true, are of a different ſpecies from the human or inteſtinal, as they are

called by Linnæus; but that author includes both with propriety under the ſame genus; and if we examine them attentively, they ſeem to have properties enough in common for a ſet of analogical experiments. I ſhould have been very glad to have made ſome trials with the mechanical vermifuges, ſuch as the rough filings of ſteel and tin, *&c.* but found it was not eaſy to be done, for the worms almoſt immediately after theſe ſubſtances were applied to them, would lie ſtill and not appear at all diſturbed, unleſs they were purpoſely put in motion, and thereby made to feel the ſtimulus of the angular particles of theſe ſubſtances; hence no certain concluſions could poſſibly be drawn from effects ſo contingent. Moreover, calomel and æthiops mineral (eſpecially the former, which is perhaps the moſt powerful vermifuge we are poſſeſſed of) being neither ſoluble nor readily ſuſpended in any aqueous menſtruum or vehicle, could not eaſily be tried. I own, however, that many more experiments might have been made ſimilar to thoſe I had already accompliſhed, but my other avocations did not render it convenient to proceed. I acknowledge alſo, that thoſe which

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I have made are not without errors, but I hope there are none that are material.

The ufe of the following table, I apprehend, will be fo obvious to the reader, as to need very little explanation.

The firft column contains the prefcriptions of the feveral vermifuges.

The fecond exhibits the number of experiments made with each.

The third contains an account how the worms were affected, on being immerfed in the feveral fluids and compofitions.

The fourth fhews in what length of time the worms became motionlefs in the vermifuges of the more active kind; but in thofe of the lefs active kind, that circumftance was much more difficult to be afcertained, from the greater length of time requifite, and therefore was omitted: As it was alfo in expreffed oils, in which they could not exert their motions in proportion to the ftimulating powers poffeffed by fome of thofe oils, on account of their vifcidity.

The fifth fhews in what length of time the worms were found dead, taking the fhorteft and the longeft period in the collective number of experiments to each article. It is almoft fu-

perfluous to add, that the letters D. H. and M. in the two laſt columns, are the initials of days, hours and minutes.

One half of the experiments were made with the conduit or ſoft fountain-water of Edinburgh, and the other half with freſh rain-water. The firſt claſs of experiments were made upon theſe waters, as the vehicles of moſt of the following articles, as exhibited in the beginning of the table. This was done, in order that we might make a proper allowance for the influence of water in killing earth-worms, independently of the medicinal qualities of the ſeveral vermifuges. The worms uſed in the experiments weighed from two ſcruples to ſix; but thoſe were generally preferred, which weighed from three ſcruples to five. They were ſeldom uſed, till they had been purged one, two, or three weeks in moſs; for it was obſervable, that they would die much ſooner under any experiment, if uſed juſt taken from the ground, and conſequently full of earth. In order to know, with more certainty, when the worms were dead, (one being uſed to every experiment), they were, from time to time, taken out of their ſeveral vermifuges in open phials, laid upon a plate, and preſſed with the

the blunt end of a probe, till they ceafed to move diftinctly on being preffed. Some means of this fort was neceffary, fince almoft all the reptile race of animals are fo tenaceous of life, that in many circumftances it is difficult to fay, whether they are really dead or not.

# VERMIFUGES.

| | Number of Experim. | Worms how affected. | When Motionleſs. | When dead. |
|---|---|---|---|---|
| **WATERS.** | | | | |
| R. Aquæ fontanæ unc. iv. | 3. | Not at all diſturbed. | | 2 D. 8 H. to 5 D. |
| R. Aquæ pluvialis unc. iv. | 7. | Ditto. | | 2 D. 1 H. to 4 D. |
| **I. NEUTRAL SALTS.** | | | | |
| R. Sal. mar. dr. ii. aq. font. ferv. unc. ii. M. fiat ſolutio. | 2. | Strongly convulſed. | 2 M. to 3. | 3 M. to 4. |
| R. Sal. gemm. dr. ii. aquæ pluv. ferv. unc. ii. M. fiat ſolutio. | 2. | Convulſed. | Ditto. | Ditto. |
| R. Nitri crudi dr. ii. aquæ pluv. ferv. unc. ii. M. fiat ſolutio. | 2. | Ditto. | 2 M. | About 4 M. |
| R. Salis cathart. Glaub. dr. ii. aquæ ferv. unc. ii. M. fiat ſolutio. | 4. | Ditto. | 3 M. to 5. | 10 M. to 16. |
| R. Aquæ marinæ unc. ii. | 2. | Somewhat convulſ. | 8 M. to 10. | 12 M. to 16. |
| **II. ACIDS.** | | | | |
| R. Succi limonum recentis unc. i. | 4. | Violently convulſ. | 3 M. | 6 M. to 7. |
| R. Aceti unc. ii. | 4. | Ditto. | 3 M. to 4. | 9 M. to 10. |
| R. Spiritus vitrioli fortis gutt. xii. aquæ fontanæ unc. ii. M. | 4. | Ditto. | 4 M. to 6. | 10 M. to 11. |
| **III. ALKALIES.** | | | | |
| R. Salis abſinthii dr. ſſ. aquæ pluvialis ſeſcunciam. | 2. | Strongly convulſed. | About 2 M. | About 4 M. |
| R. Salis tartari dr. ſſ. aquæ fontanæ ſeſcunciam. M. | 3. | Ditto. | 4 M. to 6. | 8 M. to 10. |
| R. Salis ſodæ dr. ſſ. aquæ pluvialis ſeſcunciam. M. | 2. | Convulſed. | 8 M. to 9. | 27 M. to 30. |
| R. Salis vol. ſalis ammon. dr. ſſ. aquæ pluv. ſeſcunciam. M. | 2. | Strongly convulſed. | About 3 M. | 29 M. to 34. |
| R. Lixiv. cauſtic. Ph. Ed. gutt. xl. aquæ font. unc. i. M. | 2. | Ditto. | 3 M. to 4. | 10 M. to 15. |
| R. Spiritus cornu cervi gutt. xl. aquæ pluv. ſeſcunciam. M. | 3. | Convulſed. | 3 M. to 4. | 15 M. to 16. |
| R. Aquæ calcis unc. iii. | 4. | Strongly convulſed. | 9 M. to 12. | 25 M. to 30. |
| **IV. METALLIC SALTS.** | | | | |
| R. Merc. corroſ. ſublimat. gr. iv. aquæ pluv. unc. ii. M. fiat ſolut. | 4. | Much convulſed. | 4 M. to 8. | 16 M. to 20. |
| R. Salis martis ſcrup. ii. aquæ pluv. ſeſcunciam. M. fiat ſolut. | 5. | Much diſturbed. | 25 M. to 50. | 1 H. to 2. |
| R. Vitrioli albi ſcrup. ii. aquæ pluv. unc. ii. M. fiat ſolut. | 4. | Convulſed. | 20 M. to 35. | 2 H. 1-4th to 2 H. 3-4ths. |
| **V. ESSENTIAL OILS.** | | | | |
| R. Ol. eſſent. e fol. ſabin. gutt. xx. aquæ pluv. unc. ii. ſacch. alb. ſeſquedrachmam. M. S. A. | 2. | Very much diſturb. | 9 M. to 15. | 2 H. to 2 1-half. |
| R. Ol. eſſent. e fol. abſinth. gutt. xx. aquæ pluv. unc. ii. ſacch. alb. ſeſquedrachmam. M. S. A. | 2. | Somewhat convulſ. | 8 M. to 12. | 1 H. 1-4th to 1 H. 3-4ths. |

| | | | | |
|---|---|---|---|---|
| **VI. EXPRESSED OILS.** | | | | |
| R. Olei expreſſi ſem. ricini unc. i. | 4. | | | 3 H. to 5. |
| R. Olei expreſſi ſem. lini unc. ii. | 4. | | | 10 H. to 12. |
| R. Olei olivarum unc. ii. | 4. | | | 24 H. to 34. |
| **VII. BITTERS.** | | | | |
| R. Succi ſummit. tanaceti recent. ſeſcunciam. | 4. | Very much diſturb. | | 50 M. to 70. |
| R. Succi ſummit. rutæ recent. unc. ii. | 4. | Ditto. | | 55 M. to 65. |
| R. Succi ſummit. abſinth. rom. recent. unc. ii. | 4. | Ditto. | | 60 M. to 70. |
| R. Succi fol. juglandis recent. ſeſcunciam. | 4. | Ditto. | | 54 M. to 64. |
| R. Aloes ſocot. dr. ſſ aq. pl. ſeſcunciam, ſimul terendo fiat ſol. | 4. | Much diſturbed. | | 2 H. 3-4ths to 3 3-4ths. |
| R. Fol. jugl. rec. ſeſcunciam, aq. pl. unc. vi. coq. ad colat. unc. iii. | 4. | Somewhat diſturb. | | 4 H. to 5 1-half. |
| R. Flor. lupuli exſicc. dr. ii. aq. pluv. unc. vi. coq. ad colat. unc. iii. | 4. | Much diſturbed. | | 2 H. 1-half to 4 1-half. |
| R. Pulv. ſem. ſanton. ſcrup. ii. aq. pl. unc. vi. coq. ad colat. unc. iii. | 5. | Ditto. | | 5 H. to 8. |
| R. Rad. gent. exſicc. inciſ. ſcr. iv. aq. pl. unc. vi. coq. ad colat. unc. iii. | 2. | Somewhat diſturb. | | 10 H. to 12. |
| R. Ætheris vitrioli dr. ſſ. aquæ font. unc. i. M. & obteretur phiala. | 4. | Convulſed. | 3 M. to 4. | 5 M. to 7. |
| R. Spiritus vini Gallici (Anglicè *French Brandy*) ſeſcunciam. | 3. | Ditto. | Ditto. | 14 M. to 16. |
| R. Spiritus frument. (Scoticè *Whiſkey*) ſeſcunciam. | 2. | Ditto. | 4 M. to 5. | 14 M. to 17. |
| R. Vini rubri ſeſcunciam. | 5. | Ditto. | 5 M. to 6. | 15 M. to 20. |
| R. Olei camphorati Ph. Ed. unc. ii. | 4. | | 4 M. to 8. | 15 M. to 20. |
| R. Pulv. cort. Per. dr. i. aq. pluv. unc. iv. coq. ad colaturæ unc. ii. camphoræ (in ſpiritu vini ten. gutt. xx. & mel. deſpum. dr. ſſ. ſol.) ſcrup. i. M. | 4. | Very much diſturb. | 4 M. to 11. | 19 M. to 30. |
| R. Fellis bovini recentis unc. ii. | 3. | Much diſturbed. | 5 M. to 7. | 20 M. to 35. |
| R. Folior. nicot. ſeſquedrach. aq. font. unc. vi. coq. ad colat. unc. iii. | 4. | Very much diſturb. | 15 M. to 35. | 41 M. to 60. |
| R. Pulv. rad. jalap. dr. i. aq. pluv. unc. vi. coq. ad colat. unc. iii. | 2. | Somewhat diſturb. | | 2 H. 1-4th to 2 H. 1-half. |
| R. Gum. aſſæ fœtidæ dr. i. aq. font. unc. ii. ſimul terendo, M. | 4. | Much diſturbed. | | 3 H. to 5 H. |
| R. Fol. ſpigel. Maryland. dr. i. aq. pluv. unc. vii. coq. ad colat. unc. ii. | 4. | Somewhat diſturb. | | 2 H. 3-4ths to 5 H. 1-half. |
| R. Pulv. cort. Per. dr. i. aq. pluv. unc. iv. coq. ad colat. unc. ii. | 4. | Ditto. | | 4 H. 1-half to 7 H. |
| R. Pulv. rad. rhei dr. i. aq. pluv. unc. vi. coq. ad colat. unc. iii. | 2. | Ditto. | | 6 H. to 7 H. |
| R. Fol. ſenæ dr. ii. aq. pluv. unc. iv. coq. ad colat. unc. ii. | 4. | Ditto. | | 8 H. 1-half to 13. |

From obferving the efficacy of common falt in deftroying worms, beyond that of Glauber's, in the preceding experiments, I have feveral times directed the former to be exhibited in glyfters, in fome ftrongly marked cafes of afcarides, and it has generally in a few minutes, a quarter, or half an hour, brought away a confiderable number of thofe animals, with relief. And from remarking the fuperior effects of the oleum camphoratum, to thofe of the fimple expreffed oils, in the fame experiments, I was led to prefcribe the following glyfter in adults, in the fame fort of cafes, and have found it a more efficacious remedy againft the violent itching and other painful fymptoms of the anus, than any I had ever yet met with. It generally gives fome immediate eafe; ftays all night, without any inconvenience; comes away in the morning, fometimes with a natural ftool, fometimes without; feldom brings away any live animals, but fometimes dead ones, or a vifcid and flimy matter. I am inclined to think the glyfters might be exhibited in double quantity, without inconvenience, if found neceffary; but I have not yet tried it.

℞. Camphoræ dr. i. olei olivarum ii. unc. M. ut fiat ſolutio pro enemate, hora decubitus omni nocte ad tertiam vicem injiciendo. Deinde repetatur enema alternis noctibus ad quartam vicem, ſi opus fuerit.

## XII.

*Obſervations on the Plague, Quarantines, &c. in a Letter from Dr* Matthew Guthrie, *Phyſician at St Peterſburgh, to Dr* Duncan.

SOME time ago, I did myſelf the pleaſure to ſend you a ſmall bag of the rhododendron chryſanthum, from the mountains of Siberia, to make trial of in your Diſpenſary, in gouty and rheumatic caſes, which I ſee has been received, by your inſerting an extract of my letter in the Medical Commentaries. I ſhould be much pleaſed to ſee the reſult of ſuch experiments, either in the ſame uſeful publication, or by private communication, providing your many important occupations ſhould admit of a ſpare hour.

In the mean time, I ſhall take the liberty to tranſmit to you ſome remarks upon quarantines, and

and the plague, which I have had an opportunity of collecting at the Ruſſian army in particular, and in this country in general, which has been ſo ſeverely viſited with this ſcourge of mankind ſome years ago. I had long entertained an opinion, that the term of quarantine, as eſtabliſhed in the ſeveral countries of Europe, was unneceſſarily long, and that from this circumſtance it defeated, in a manner, its own end; but I was much confirmed in my way of thinking, by finding men of the greateſt practice and experience, whom I conſulted on the ſubject at the army in 1772, (where I had been carried by profeſſional duty), of the ſame opinion. However, even thus emboldened to ſpeak, I do not believe I ſhould have had courage to make an attack on laws that have had the ſanction of ages, if I had not the authority of the great Cullen on my ſide, who has expreſſed ſimilar ſentiments, in his new publication, Firſt Lines of the Practice of Phyſic; and I ſhall therefore cover my remarks with the paſſage alluded to, when treating of the plague. He expreſſes himſelf thus:

"With reſpect to quarantines, we are per-"ſuaded, that the quarantine of perſons may "ſafely

"safely be much less than forty days; and if "this was allowed, the execution of them would "be more exact and certain, and the temptation to break them would be in a great measure avoided."

Chance threw in my way an excellent opportunity of examining into the merits of this opinion, by consulting the Physicians and Surgeons of the Russian army, lying in the conquered Turkish provinces of Moldavia and Walachia, where the plague ever obtained more or less during the whole war, and at the beginning raged with destructive violence; and on addressing myself to Baron Ash, Physician-general, I had an answer that met my ideas on the subject.

I suggested to him a doubt of the possibility, that the very active contagion of the plague could remain so long latent in the body as the quarantine of persons seemed to imply, and that it appeared to me to be founded on an imperfect knowledge of the disease, drawn from a period of ignorance, or of general consternation and terror.

His answer was, that he did not think it possible that the contagious matter of this violent

diſeaſe could lurk longer in the body than fourteen days, without declaring itſelf on or before that period; but that, from his own obſervation and experience, he could not take it upon him to ſay that it could be concealed ſo long. Such were likewiſe the anſwers I received from the other medical gentlemen whom I conſulted upon the ſubject. Some gave a little more latitude, and ſome leſs, (as it can only be a matter of opinion), but none exceeded fourteen days, and few came up to it.

The difficulty of aſcertaining the exact time when the infection is received, and conſequently the interval that takes place before the attack of the peſtilential fever, muſt appear upon the face of the caſe, except experiments were to be made on purpoſe, which is ſcarcely to be expected. However, the intrepidity of a ſingle man has thrown ſome light upon the matter.

This was Mathias Degio, one of the ſurgeons of the hoſpital at Bучареſt, a building appropriated to the cure of the plague in the Ruſſian army. He, perceiving the gentlemen of his profeſſion condemned, in a manner, to death, if punctual in their duty, had the reſolution to inoculate himſelf for the plague, in the full confidence

fidence of its efficacy, and ever afterwards found himſelf invulnerable, whilſt his companions around him were falling victims to its fury.

He produced the diſeaſe, by inſerting with the point of a lancet, under the epidermis of his arm, matter from a peſtiferous abſceſs, and followed the cold regimen obſerved in the ſmall pox, as he had imitated its mode of inoculation. On the fourth day of the puncture the fever declared itſelf, and he being perfectly devoid of fear, got through the diſeaſe, without feeling more inconveniency than if it had really been that which he imitated. He drank freely of cold water, with vinegar, or a little wine, and kept generally out of doors. This beverage was the only remedy that had the appearance of medicine, which he had recourſe to; and he relied for the reſt on air and Providence. Now this caſe ſeems to point out the fourth day after inſertion, as the period that the diſeaſe ſhews itſelf; however, it is a pity that this fact reſts upon one experiment. I have made alſo particular enquiries concerning the plague and quarantines amongſt my profeſſional brethren, that ſurvived the deſtruction of the faculty at Moſcow; and I am inclined to think, from the whole of their

their information, that this dangerous disease finds entrance into countries either by means of goods, or by men purchasing the connivance of quarantine guards, to pass at an early period, without having undergone sufficient purification, with the very garb that they wore in the infected kingdom, and probably with other property concealed in their pockets, and about their persons; for here I suppose the real danger lies, as inanimate matter may conceal contagion for a length of time, without any criterion to judge of its presence; and I am told this accident has sometimes happened in this country, from the natural impatience of men on the prospect of so long a restraint, hazarding every thing, and lavishing their money to elude it. Now, it is probable, that instead of the distant period of forty days, (distant indeed to a man returning to his friends and country, after a long journey and absence), if the duration of purification was reduced to three weeks, and made more effectual by bathing and well cleaning the body with soap and water, so as to remove every adhering particle, and afterwards dressing them in clean clothes, that had never run the risk of infection, instead of the inadequate and ineffectual ceremony

mony of ſmoaking. Whilſt all ſorts of perſonal property ſhould remain to be aired and purified with the other goods, except money, which might undergo the operation of ſcrubbing with its poſſeſſor, before being allowed to circulate through the hands of the public. I ſay, that with theſe precautions, I am convinced in my own mind, that the quarantine of perſons might be much ſhortened, without danger to the ſtate; nay, that the danger would be much leſſened, by ſuch alteration in the law, from the temptation to break it being in a great meaſure removed; but that government, at the ſame time, cannot be too careful in airing and purifying goods, and even perſonal property; although I ſhould think that this alſo might be effected in leſs time, as it probably depends more upon the means employed, and the frequently preſenting of different ſurfaces to the air, than in the duration of ſuch labour. I ſuſpect that religious ſuperſtition has had ſome ſhare in pointing out exactly forty days.

I ſhall now give you what particulars I learned with regard to the plague, from the medical gentlemen at the Ruſſian army, and from other practitioners well verſed in the diſeaſe.

## *Subſtance of Notes taken at the* RUSSIAN ARMY.

### *Symptoms of the Plague.*

The Phyſician-general informed me, that on the attack of the diſeaſe, the patient was ſeized with a dull pain in the head, reſembling the effect of phlogiſton from charcoal *, accompanied with a ſhivering and univerſal weakneſs, a bitter taſte in the mouth, nauſea and a heavy inflamed eye. Theſe ſymptoms were ſucceeded by a vomiting, and a bubo or bubos made their appearance in the inguinal or ſubaxillary, and ſometimes parotid glands, but always lower down than where the venereal bubos appear. After thoſe glandular ſwellings, there ſometimes followed livid-coloured carbuncles on different parts of the body, even on the bubos themſelves; but it is remarked, that if the hands or feet were the ſeat of them, the patient ſeldom or never recovered. Dr Aſh alſo obſerved them to be

* I have endeavoured to deſcribe the effects of phlogiſton from charcoal on the human body, in a letter to Dr Prieſtly, an extract of which is publiſhed in the 69th volume, I believe, of the Tranſactions of the Royal Society; and have adjoined the mode of cure, as practiſed in Ruſſia, where the accident is very common.

be attended with the greateſt danger, when ſeated on the dorſal ſpine.

If medicine did not relieve the patient ſoon after this period, a delirium came on, attended with a ſmall quick pulſe, and convulſions put an end to the patient's life. Such were the principal ſymptoms of the plague, in the hot climate where the army lay.

The mode of cure which they found the moſt effectual, was beginning with a vomit on the appearance of the firſt ſymptoms, and working it off with acid drinks. If the nauſea and bitter taſte in the mouth was not removed by the firſt, they gave a ſecond, and ſometimes a third and fourth; nay, if the ſymptoms were very urgent, they gave two or three in the ſpace of twelve hours, as there is no time to be loſt in this diſeaſe; for they did not find this ſpecies of evacuation ſubject to the ſame objections as briſk purges, which a man in the plague is unable to ſupport; nay, they are even dangerous, although he bears briſk vomits, and a repetition of them, when the nature of the caſe require it. The ſtomach thus cleared, they gave the following powder every morning: ℞. Pulv. rhei elect. flor. ſulph. aa ſcrup. i. ipecac. gr. iii. M. f.

 pulv.;

pulv.; and every hour, ℞. Camphor gr. ii. nitr, pur. gr. v. M. f. pulv.; and if coſtive, a laxative glyſter was adminiſtered every evening, compoſed of decoct. flor. chamomel. cum acet. vini, with or without ſoap, according to circumſtances.

The head, temples and bubos were frequently bathed with warm vinegar, and the laſt urged to ſuppuration, with emollient cataplaſms; but in caſe they were found to baffle all attempts to bring them forward, they were then ſcarified or extirpated, and the patient ordered to drink plentiful of aq. calcis. Bark was given after evacuation, joined to the flor. ſulph. in the proportion of one ounce of the firſt to one dram of the ſecond, divided into ſixteen powders, and taken in twenty-four hours. When delirium came on, bliſters were applied to the legs and arms, and camphor given largely. Vegetable and mineral acids were indiſcriminately uſed; but they found the vegetable to remain upon the ſtomach ſometimes, when the mineral was thrown up; and of the latter, they preferred the vitriolic. They gave acidulated drinks in quantity through the whole diſeaſe, and

and the food confifted of acidulated water-gruel, and fruit when they could procure any.

The air of the room was kept charged as much as poffible with acetous vapours; and the Doctor concluded this outline of their mode of cure, by remarking, that while the bitter tafte continued, there was little hopes of the difeafe abating.

The other medical gentlemen agreed fo clofely in their accounts with their chief, that I have thrown the whole into one narration.

Since my return to Peterfburg, I have got fome information from gentlemen, who ferved all the laft war in the plague hofpitals, but whom I did not meet with at the head quarters (Jaffy) during my refidence there.

One of thofe gentlemen, Mr George Smyth, furgeon-major of the Imperial Land cadet-corps of Nobles, to which I am Phyfician, is a rare inftance of a man furviving two different attacks of the plague, with all its characteriftic fymptoms, fuch as bubos, carbuncles, *&c.* and for this reafon, his account muft be interefting. The method of cure that twice faved Mr Smyth's life, and what he ufed to his patients, during near five years that he was employed in treat-

ing this difeafe, was beginning with a ftrong vomit, compofed of pulv. ipecac. dr. ff. tart. emetic. gr. i. tart. vitriolat. fcrup. i. M. f. pulv. This was taken for a dofe, and repeated once or twice, as the cafe required, during the firft two days, and, in the intervals, was given an opening ptifan of fruct tamerendor, and manna, to prevent conftipation. When thefe evacuations had been made for a couple of days, or fooner, if the fymptoms were urgent, he gave the bark in quantity, joined to the flour of fulphur, without lofing time, (as he expreffed it), with camphor and nitre. The reft of his practice agreed fo exactly with what is given above, that I fhall only add fome remarks he made upon the difeafe.

He obferved, that the carbuncles are a more advanced fymptom of the plague than the bubos, and a fign of the peftiferous virus being in a more active and malignant ftate; and as for the petechiæ that fometimes appear towards the end of the difeafe, they are regarded as a mark of the higheft poffible degree of malignity, and as heralds of approaching death. However, this is a fymptom that we are accuftomed to fee in putrid difeafes of inferior note, where I believe

lieve bubos and carbuncles would alarm a practitioner much more. He alſo obſerved with Dr Aſh, and the other gentlemen at the army, that the peſtiferous bubo is particularly marked by its ſituation from thoſe that appear in other diſeaſes, and is perhaps the ſureſt method of diſtinguiſhing the plague in ſome caſes from the putrid malignant fever in its worſt aſpect in warm climates; although it muſt be allowed, that the plague ſometimes appears without this characteriſtic mark; and then the Phyſician can only judge from the violence and rapid progreſs of the ſymptoms. He alſo ſaid, he had ſeen men in apparent good health, inſtantaneouſly drop down, as if ſhot with a muſket-ball, by the ſudden action of the peſtiferous miaſma, and upon duty again in twenty-four hours, perfectly recovered by the operation of a ſtrong vomit: This looks as if the contagious matter exiſted in a very looſe ſtate in the firſt paſſages, at the beginning of the diſeaſe.

The Surgeon-major of the Imperial Convent of Noble Ladies, is alſo a veteran army-ſurgeon, and made a few additional remarks to me upon the diſeaſe. He ſaid, that the carbuncles which he had ſeen in that diviſion of the army where

he ferved, were of two fizes; one as big as a pigeon's egg, and the other fomething fmaller; they likewife had the form of an egg, cut longitudinally, with the flat furface applied to the body. They are attended with more or lefs danger, according to their colour, red, or livid; the laft is more dangerous than the firft; but neither the one nor the other is attended with fo much, if they fuppurate, as when dry. That there is a line moft diftinctly drawn between the plague and malignant fever, by the impetuofity and violence of the fymptoms, when even no bubos appear; for he fays, the patient will be in perfect health in the evening, and in the morning you find the nervous fyftem, in fuch a ftate of debility and diforder, that with difficulty you can get anfwers to the neceffary medical queftions.

His own practice, and that of the hofpital which he attended, confifted in giving a cold turbid infufion of the bark in vinegar in large dofes of two drams (fubftance) every two hours, as foon as the firft paffages were cleared; and he feldom gave purges, except when the vomit did not procure a ftool, which was ipecacuanha in fubftance.

You

You will obſerve, that thoſe gentlemen lay a ſtreſs upon diſtinguiſhing the plague from the worſt ſort of malignant fever in hot countries; and it is not without reaſon, as bad conſequences have attended confounding of them on the breaking out of the plague. I am credibly informed, that the great havock made in Moſcow was principally owing to this circumſtance; for it obtained ſome time before diſcovered by gentlemen unacquainted with the diſeaſe, and before they would acknowledge its exiſtence, although ſome veteran army practitioners recognized its appearance, under one of its forms, and endeavoured to alarm their brethren, but in vain for a time.

As an appendix to theſe few outlines of the Ruſſian plague, I ſhall give ſome paſſages of a ſpeech that I heard Baron Aſh deliver laſt year, on being elected a member of our Imperial Academy of Sciences, as it falls into my ſubject. This harangue was on the advantages that ſcience in general, and medicine in particular, have acquired from war.

He ſaid, that at the Ruſſian army laſt war, the medical gentlemen had, by long obſervation, and repeated experiment, aſcertained, that the

the plague does not depend upon any particular conſtitution of the air, but is communicated only by contact; and they had repeatedly ſucceeded in ſuppreſſing it in different diviſions of the army, by the immediate ſeparation of the infected with their attendants, and burning every thing belonging to them, or that they had touched.

That they found the greateſt advantage accrue to the army, from keeping the ſoldiers in ignorance of its exiſtence, till ſuppreſſed; for, by this means, they preſerved their peace of mind, and health of body; and they found an exact military diſcipline, the beſt preſervative againſt the diſeaſe. For the cure of thoſe infected, they found the cold regimen, a free circulation of air, vegetable and mineral acids, ipecacuanha, rhubarb and bark, to be the propereſt remedies. That to purify the air in hoſpitals appropriated for their reception, gunpowder was found moſt efficacious, probably from the commotion given to the air in exploſion, over and above its action in common with other fumes.

To reſiſt infection, courage and fortitude of mind is neceſſary, as conſternation and terror

ſeem

ſeem to prepare the body for the reception of the diſeaſe.

In heated rooms, the diſeaſe is ungovernable; it is only in free air that it is to be treated.

The Baron then ſaid a great deal in favour of inoculation of the plague, in caſes of danger from infection, and ſupported his opinion with the caſe of Mathias Degio given above; and the analogy that has been obſerved between the plague, ſmall-pox, and the contagious diſeaſe that ſo often attacks horned cattle, a ſpecies of animals ſo neceſſary to agriculture, and the general uſe of man; he ſaid, that a number of enlightened men had endeavoured to find a remedy for theſe different evils, and that they had as yet found nothing to anſwer equal to inoculation; and mentioned a ſet of fortunate experiments made laſt year by Mr Schumacher, in different parts of the dutchy of Mecklenburg, to inoculate horned cattle for the contagious diſeaſe ſo fatal to them, which are well worth the attention of the public, and to be found in a treatiſe, written in the German language, and publiſhed at Berlin 1779, in 8vo, entitled, "A "Method of ſtopping the Danger directly on "the

"the Appearance of the Diſeaſe amongſt horn-
"ed Cattle, illuſtrated by Experiments and
"Facts."

And ſome time before, the late learned Profeſſor Erxleben of Gottingen, had alſo publiſhed another upon this ſubject, in German, at Gottingen, entitled, "The Art of curing the Diſeaſes of Cattle." Gottingen 1771. 8vo.

Such, good Sir, is the information I have been able to obtain in this country, of a diſeaſe that Providence has been pleaſed to keep at a diſtance from ours, for a number of years; and that very reaſon, is the only one I ſhall offer for ſending it, as Phyſicians, like other natural philoſophers, require a number of well atteſted facts, to form opinions upon thoſe your good fortune has denied you at home on this ſubject; and conſequently, I preſume they muſt be acceptable from abroad. And if my Ruſſian news can give you any ſatisfaction, I ſhall take a pleaſure in communicating them, when opportunity offers, in return for the real advantages I reap from the peruſal of your uſeful Commentaries, which are particularly ſo to us, who live abroad, and are, at the ſame time, anxious to know what

what paſſes at home in the line of your profeſſion.

*P. S.* There is a curious fact, which I recollect in the Baron's ſpeech; and as it poſſibly may not be generally known in Great Britain, I ſhall mention here: "That the Surgeons of "the Pruſſian army laſt war, have diſcovered "applications with cold water, to be the moſt "effectual remedy in violent concuſſions of "the brain." This application, I have repeatedly uſed with ſucceſs.

This ſpeech will be printed, I ſuppoſe, in the acts of the Academy, according to cuſtom, as the harangue of a new member.

## SECT. III.

### *Medical News.*

DR FITZPATRICK of Dublin, in a letter to Dr Duncan, gives the following remarkable inſtance of convulſive affections in two young ladies, being induced from a very uncommon cauſe:

"I was called to a Mrs Bolger, in Ship-ſtreet, in the year 1779, who was violently attacked with a nervous colic. Its violence was ſo great as to equal, by her own deſcription, the pains of labour, but of much longer duration, being completely remittent; for ſhe was ſcarce ever free from pain for two days; but at times, the paroxyſms were ſo ſevere, as to render it difficult to keep her in bed.

Having

Having occaſion to viſit two young ladies of the name of Noy, about two hundred yards from Mr Bolger's houſe, who were then highly feveriſh, and in the eruptive ſtage of the meaſles; immediately on entering their chamber, I attempted to feel one of the young ladies pulſe, when ſhe ſcreamed out, and ſaid ſhe got a violent pain, on which I let her hand looſe, and went to the other ſide of the bed, (imagining ſhe was joking), to feel the other lady's pulſe; and by the time I was on the other ſide, and feeling the ſiſter's pulſe, the firſt lady was completely convulſed, and the ſecond cried out in the ſame manner. Their limbs were drawn up, and their arms diſtorted, hands clinched, *&c.* But the ſecond lady's attack was very trifling, when compared to that of the lady's whoſe pulſe I firſt felt; for the ſecond lady rather joked on the matter, after four or five minutes; whereas the firſt was ſo ill, and her limbs ſo convulſed for near an hour, as to render it neceſſary to hold them, and to adminiſter aſſafœtid, valerian, and ſome thebaic tincture, before the parts were quieted; from which time, there never was any ſimilar attack, nor did it ever happen before.

The

The following conjecture may perhaps afford some explanation of this singular affection.

I suppose, that a redundance of electrical fluid, or animal spirit, was irregularly circulating in Mrs Bolger, and that I became the conductor of that fluid, being, as it were, insulated on dry or parched flags, which continue all the way from Mrs Bolger's to Miss Noys; and that so soon as I arrived there, and had applied my finger to the lady's wrist, that she was immediately affected; but that on going to the other side of the bed, the matter was likewise conveyed, but not so strong, as it was in some measure exhausted in the touch of the first lady. I have heard, that the application of live pigeons to the navel of children labouring under convulsive complaints of the bowels, has relieved them, and that the pigeons have instantly become convulsed; but it is necessary to remove the feathers from the part of the pigeon that is to be applied: I suppose because feathers are non-conductors. If this be a fact, may we not suppose, that the redundant electric fluid, or animal spirit, is conveyed to the pigeon, and so causes the convulsed motion in him, whilst the infant

infant is freed from the diſorder? And may not this be an uſeful hint to Phyſicians, in reſpect to cautioning them againſt what I was guilty of? Or might not the eruptive ſtage of the meaſles diſpoſe the Miſs Noys to be affected, as we ſometimes obſerve a ſimiliar ſymptom in the eruption of the ſmall pox? Or might not the general irritability, heightened by the fever, diſpoſe them to be attacked?"

* * * *

Dr Pearſon, Phyſician at Doncaſter, in a letter to Dr Duncan, gives the following account of the reſult of a number of experiments which he has made on the air contained in the Buxton waters. Although we have reaſon to hope that Dr Pearſon may ſoon publiſh the experiments themſelves, yet as his ſentiments are very different from the opinions which have hitherto been entertained on that ſubject, the following ſhort view may in the mean time be of ſome uſe, both in gratifying curioſity, and in prompting others to exert their induſtry on the ſame ſubject.

"From the ſpaces between the pavement of the floor of the bath at Buxton, through which the water ſprings into the bath, a vapour or air is

 ſeen

ſeen pretty frequently to ariſe in bubbles of a larger or ſmaller ſize, and in a larger or ſmaller number, that paſs immediately through the body of water to the ſurface, and there burſt and eſcape.

Theſe bubbles of air may be collected in great quantities, by placing inverted bottles and funnels full of water, and immerſed in the bath, over the parts of the floor of the bath where they are apt to ariſe.

The air ſo collected has the following amongſt other properties:

1. If to two meaſures of this air be added one meaſure of nitrous air, there will be no colour, turbid appearance, or heat produced by ſuch mixture; nor any diminution take place immediately or by ſtanding together.

2. It is fatal to animals the inſtant they breathe in it.

3. It extinguiſhes flame immediately.

4. It will not combine with water or with cauſtic ley, although the combination be aſſiſted by heat and agitation.

5. It does not diſturb the tranſparency of lime-water.

6. Vegetables

6. Vegetables *live* in greater health and vigour, and *grow* more luxuriantly, than in common refpirable air, either in the open air, or under fimilar circumftances of confinement, *&c.*

7. It has no power of diminifhing or removing the fœtor of putrid animal mufcles.

8. After being transfufed through water, or lime-water, or cauftic ley, thirty or forty times, its quantity is not diminifhed, nor its properties changed.

I fhould have obferved, that the water, when frefh drawn from the well or bath, exhibits fmall beads or bubbles, that adhere to the fides of the glaffes, and which efcape or difappear by ftanding in the ordinary heat of the air. Thefe beads are the above air. This air has been hitherto affirmed, in the moft pofitive manner, to be fixed air.

Air is alfo feparated from Buxton water by boiling.

Air fo feparated,

1. Does not combine with water or cauftic ley.

2. Does not render lime-water turbid.

3. Two meafures of this air added to one meafure of nitrous air, always produces an

 orange-

orange-colour, turbid appearance, and heat for a few ſeconds, and a diminution of quantity. Sometimes the diminution is, after a few days ſtanding, two meaſures and one ninth; at others, two meaſures and ſix or ſeven ninths.

4. Animals always live a much ſhorter time in this air than in common air, and ſometimes are killed by it in a few minutes.

The water that affords this air by boiling, and which has been boiled ſome time after it ceaſes to yield this air, precipitates lime from lime-water as copiouſly as before, and requires as large a proportion of lime-water to ſeparate the fixed air in the water as before boiling.

Matlock water, another warm mineral water in Derbyſhire, contains about two ounce-meaſures of air, of greater purity than common air, in eight wine-quarts of water; and ſeven or eight ounce-meaſures of fixed air in the ſame quantity of water. The firſt is ſeparated by boiling the water; the latter, by ſaturating the fixed air with lime-water, and afterwards decompoſing the ſediment by acids."

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Dr Biſſet, Phyſician at Knayton, in a letter to Dr Duncan, gives the following account of ſeveral

veral remarkable particulars refpecting an old woman in that neighbourhood.

"On the 24th of Auguft 1781, I called at the poor-houfe in Borrowby, a village fituated on the declivity of a hill in this neighbourhood, to fee Mary Wood, a poor woman, who is ninety-eight years and five months old. After taking the outlines of her face, and a half length, I afked her feveral queftions, her anfwers to which afforded the following information. Her mother, who lived at Kirby Steven, in Weftmoreland, attained the age of 112 years; and Mary Wood expects to live precifely to the fame age. She does not remember her father, who died young. Mary has been affected with a cough as far back as fhe can remember; but fhe thinks it began in the fifteenth year of her age; about the fame time, or in fome time after the onfet of the chronic habitual cough, her miftrefs, who chewed a little tobacco, advifed Mary to adopt the fame remedy for her cough, which, I fuppofe, was moift, or attended with an expectoration of fome phlegm, as it is now. She has chewed tobacco ever fince, and has a fmall chew always in her mouth, except when fhe eats or fleeps. Though an immoderate or frequent

uſe of tobacco, either by chewing or ſmoking, eſpecially when it is attended with a copious ſpitting of ſaliva, generally palls the appetite, and occaſions ingeſted food to deſcend into the ſmall inteſtines before it is ſufficiently digeſted, and by conſequence debilitates the body, and in proceſs of time gives riſe to many bad effects; yet its effects with Mary Wood are preciſely the reverſe: For, if from poverty ſhe happens to be deprived of tobacco during the ſpace of two or three days, ſhe becomes low-ſpirited, dejected, inappetent, and feeble, and is either unable or unwilling to get up; and ſhe would probably ſoon die, were ſhe to be totally deprived of it. But on being enabled, through the bounty of ſome curious viſitor, to reſume the chewing of her beloved tobacco, her fibres are again inſtantly braced up, her appetite, which is generally very good, returns, and her health is completely re-eſtabliſhed. Indeed, as ſhe is forced to be very frugal of her tobacco, ſhe takes but a ſmall chew into her mouth at a time; and it is probable that tobacco, on being uſed ſparingly in this manner, might prove ſerviceable in ſome caſes, particularly to perſons that are naturally ſtrong, but affected with a moiſt aſthma. I was

informed

informed by an old man who had for many years been aſthmatic, that he had taken various medicines for the diſorder; but that the frequent chewing of a little tobacco, and ſwallowing a little of the ſpittle ſometimes, was the only remedy from which he reaped any benefit; and that he was accuſtomed formerly, on being greatly oppreſſed with the aſthma, to ſwallow as much of the ſpittle in a morning, faſting, as ſufficed to excite vomiting, which always afforded the moſt immediate relief. Mary Wood is not liable to ſpit ſaliva in chewing tobacco.

She was twice married, and had five children, who all died young. Half a year ago ſhe got twelve molar teeth, moſtly in the lower jaw, eight of which only are now remaining; and as they are all ſomewhat looſe, it is doubtful whether they originate from ſockets, or only from the gum or perioſteum. The gums of ſome old people become callous, ſo as to enable them to eat hard biſcuit; and it is well known, that the perioſteum is apt, in particular places, to oſſify. I felt, with my finger, two ſmall ſharp teeth in the anterior part of the gum of the upper jaw, that cut within a week paſt. She ſits up during the greater part of the day, and eats with a good

 appetite,

appetite, whether up or in bed, ſuch food as other poor people in the poor-houſe are ſerved with: She loves butchers meat, and delights in the fatteſt pieces: but ſhe lives moſtly on milk and bread, and oat-meal and milk; ſhe drinks butter-milk as often as ſhe can procure it, and her common drink is groundivy-tea. She has formerly been affected with a wandering rheumatiſm in a ſmall degree; and would certainly have been affected in a higher degree with it, or with a more grievous diſeaſe, if ſhe had been exempt from an habitual cough, with ſpitting of phlegm. About twenty years ago, ſhe loſt the ſight of her left eye, from a violent inflammation of it, which was attended with a vehement headach, being an ophthalmy of the whole ball of the eye, which is now ſunk. She imagines it was occaſioned by a large hail-ſtone which hit the eye. She now ſees but imperfectly with the right eye; but her hearing is tolerably good. She lies much in bed; but her ſleeps are neither long nor very ſound, as they are often interrupted by fits of coughing, which always terminate by the expectoration of ſome phlegm: Indeed long ſleeps would have diſagreeable effects, by ſuffering phlegm to accumulate.

At three o'clock in the afternoon, when I ſaw her, ſhe ſeemed cheerful, was healthy, breathed with perfect eaſe, and walked with great facility with the aid of a ſtick, her loins and head being pretty erect: but the dorſal vertebræ are ſomewhat prominent outward, but equally, in the form of an arch, no one vertebra being more prominent than another; but this curvature is not of an old date, as ſhe was formerly ſtraight; and ſhe has been rather tall for a woman, and ſtrong in proportion to her height.

She is affected in ſome degree with dizzineſs, a complaint moſt incident to old people; and though her breathing is perfectly free and eaſy, yet ſhe cannot lie with her head low, but is under a neceſſity of having it propped up, doubtleſs that ſhe may expectorate with more facility when attacked by a fit of coughing. Her pulſe is large, ſomewhat hard, and quick, and the ſtrokes are ſtrong, free, and equal. When I firſt felt her pulſe, it beat near a hundred ſtrokes in a minute; but as I thought ſhe might be fluttered a little by my preſence, I called again in half an hour, and after ſitting down by her for ſome little time on a bench at the door,

and

and aſking ſome farther queſtions, when ſhe appeared calm and compoſed, I counted her pulſe again; it then beat eighty times in a minute; and this I take to be the common ſtandard of her pulſe. Her thirſt has in general been greater than uſual; owing, I ſuppoſe, partly to the conſtant chewing of tobacco, and partly to the quickneſs of her pulſe; but her tongue is moiſt and well-coloured, as it is generally in catarrhal affections with ſpitting. She is ſo temperate in her body, notwithſtanding the uncommon quickneſs of her pulſe, that ſhe never requires any laxative medicine. The tobacco is probably conducive towards promoting this good effect. As her face is rather plump, it is not greatly wrinkled, her forehead excepted. On the whole, may it not be inferred, that Mary Wood has been in ſome degree phthiſical from the fifteenth year of her age, that is, during the ſpace of eighty-three years? I make no doubt but ſhe has an hereditary latent ſcrophulous taint, which has been repreſſed by ſtrong fibres, joined with temperance; and it is probable that one or more of her children, had they lived to a more advanced age, would have been

been affected with a ſcrophula, or died conſumptive."

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A botanical ſociety at Lichfield, have undertaken to publiſh a literal tranſlation of the Genera and Species Plantarum of Linnæus. Our readers will be able to form ſome idea of this Work from the following preface of the tranſlators.

"The future improvements in agriculture, in medicine, and in many inferior arts, as of dying, tanning, varniſhing, with many of the more important manufactures, as of paper, linen, cordage, muſt principally ariſe from the knowledge of *botany*. For how can we aſcertain the more recondite properties of bodies, without firſt being enabled to diſtinguiſh them from each other? From the want of this ſcience, almoſt all the medicines, and many of the arts of the ancients, have been loſt to their deſcendents.

The labours of Linnæus are generally acknowledged to have beſt ſupplied this great ſource of future improvement, and yet his works have not hitherto properly appeared in the Engliſh language. Mr Lee indeed, in his introduction to botany, has well tranſlated and explained many parts

parts of the Philosophia Botanica; Dr Berkenhout has given a lexicon of terms extracted from the same work; and Mr Milne has disposed a great part of it with other botanical knowledge into the form of a dictionary. All these labours have their merit; but why should not the works themselves be translated into our language? The concise and beautiful arrangement, for which they are so remarkable, is lost in these diffuse explanations of them.

Dr Withering has given a Flora Anglica under the title of Botanical Arrangements, and in this has translated parts of the Genera and Species Plantarum of Linnæus; but has entirely omitted the sexual distinctions, which are essential to the philosophy of the system; and has introduced a number of English generic names, which either bear no analogy to those of Linnæus, or are derived from such as he has rejected, or has applied to other genera; and has thus rendered many parts of his work unintelligible to the Latin botanist, equally difficult to the English scholar, and loaded the science with an addition of new words.

We propose to give a literal and accurate translation of the Genera and Species Plantarum

rum of Linnæus, which unfold and deſcribe the whole of his ingenious and elaborate ſyſtem of vegetation. The terms which he invented, or appropriated to thoſe parts of vegetables, which he either firſt diſcovered, or on which his ſyſtem is erected, are retained in the tranſlation with Engliſh terminations. As new ideas require new words to repreſent them, and muſt therefore be explained to the young botaniſt, it is of no conſequence from what language they are derived. Thoſe therefore already in uſe are preferred to ſuch as might be found in our own language, though ſimilar in their primitive ſignification; as ſuch words would be liable to preſent to the mind their vulgar meaning, which is not ſufficiently preciſe for the purpoſes of ſcience. Thus, *calyx* is uſed by Linnæus for the green cup beneath ſome flowers, for the ſheath from which others burſt longitudinally, for the leaves beneath the umbels of others, for the huſks of graſſes, the catkins of willow, nettle, *&c.* the veil over the flowers of moſſes, and the ſkin beneath the heads of muſhrooms. All this muſt be explained, whether it is repreſented by the word *calyx*, or by the word *impalement;* which latter, though uſed by ſome of the writers

writers above mentioned, is as difficult to the Engliſh ſcholar, as the word *calyx;* is not underſtood by thoſe who are already acquainted with the language of Linnæus; and does not aſſiſt the young botaniſt in his ſtudy of the original.

So the word *legumen* means a pod, in which all the peas or ſeeds are attached to the upper edge or ſuture; *ſiliqua*, a pod in which they are alternately attached to the upper and under one. If the former ſhould be termed *ſwad*, and the latter *pod*, they muſt ſtill be defined; and thus the meaning of them would be as difficult to acquire by the Engliſh reader, as that of the words *legumen* and *ſiliqua;* and would be ſo unintelligible to the Latin botaniſt, that they could not converſe together.

Hence we have retained the words *calyx* for flower-cup; *corol* for bloſſom; *ſtamen* for chive; *piſtil* for pointal; *pericarp* for fruit-veſſel; and ſome other technical words; ſuch as would neceſſarily be uſed in an Engliſh converſation by botaniſts acquainted with the original of Linnæus: For the explanation of theſe we muſt refer the reader to the books above mentioned; and muſt beg leave here to appriſe him of the

following

following abbreviations of them: Cal. for calyx; cor. for corol; ſtam. for ſtamen; piſt. for piſtil; per. for pericarp. And as the diminutives of ſome of theſe are ſo perpetually neceſſary through the courſe of the work, we have endeavoured to form them ſo as to be eaſily familiarized to an Engliſh ear, and equally intelligible to the Latin botaniſt: as leaf, leaflet; ſtalk, ſtalklet; valve, valvelet; tooth, toothlet; ſpathe, ſpathelet; tube, tubelet; crown, coronet; corol, corollet; calyx, calycle; diviſion, ſubdiviſion: Of ſuch diminutives the words tablet, ringlet, rivulet, icicle, particle, *&c.* are in daily uſe.

Linnæus has arranged individual vegetables into families, and to theſe families or genera he has given names; and, as there are perhaps no generic names in our language, we have univerſally adopted thoſe of our author; thus, the words *triticum*, *hordeum*, *avena*, *ſecale*, are family names; which include variety of other graſſes, as well as the wheat, barley, oats, and rye, which we cultivate for our food; the generic name *amygdalus* includes the peach as well as the almond; *prunus* includes the cherry, apricot, and laurel, as well as the plumb; and *pyrus* the apple, ſweet-flowered crab, and quince,

as

as well as the pear; whence it would have been productive of much confusion, to have given any of these English names to families, which belong to individuals. But in respect to the species or individuals of plants, where the trivial name is expressive of some peculiarity of the plant, we have translated it by an equivalent English word; where it is merely a cognomen, the word used by Linnæus is retained: The quotations from other works are placed in the index-form, *as our author has disposed them:* And the best received English names are added in their proper places, from Miller, Hudson, Lightfoot, and referred to in the index of synonimes.

The learned reader will perceive, that we have made a slight change in the construction of the sexual distinctions of the classes, on account of the greater delicacy of modern language; hence the words, one male, and one female, are used in preference to one virility, one feminality. In regard to the general language, we have endeavoured to copy that of Linnæus with the most scrupulous exactness; for as this illustrious naturalist may be said to have made a language, rather than to have found one, suitable to his purpose; and appears

to

to have ſtudied every part of his work, from the great outline of the ſyſtem to the moſt minute circumſtance of conſtruction and arrangement, with induſtry and ſagacity almoſt peculiar to himſelf, we have tranſlated it as far as might be, page for page, and line for line: And in forming the many neceſſary compound words, have laboured their conciſeneſs and diſtinctneſs, as our author has done, rather than the elegance of their combinations: And as our language allows of various kinds of compounded words, and thoſe terminating either as ſubſtantives, adjectives, or participles both active and paſſive, we were happy to find it as well adapted to our purpoſe as the Latin, though leſs ſo than the Greek. Thus, a wolf-dog, a ſky-lark, a ten-pound bill, a one-horſe chair, a two-man beetle, a ſix-penny loaf, five-card loo, a moth-eaten garment, a three-footed ſtool, a four-wheeled carriage, cloud-compelling, ever-living, are words uſed either in familiar converſation, or by reſpectable writers; and give us authority for ſimilar kinds of combinations.

We further propoſe to add as an appendix, the deſcriptions of ſuch new diſcovered plants as may come to our knowledge; and to give

a few plates for the affiftance of the young botanift; and to publifh the whole as fpeedily as may be, in monthly numbers; wifhing, as far as is in our power, to propagate the knowledge of this important branch of natural hiftory amongft all ranks of people."

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Mr Henry of Manchefter, who lately publifhed a tranflation of Lavoifier's Effays, Phyfical and Chemical, and who is juftly celebrated for many important publications and difcoveries in chemiftry, is at prefent engaged, and has made confiderable progrefs in tranflating Mr Baumé's Chymie Experimentale et Raifonnée, which he intends to publifh with notes as foon as his other avocations will permit.

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A very important anatomical work, is at prefent in the prefs at Edinburgh, and will foon be publifhed, entitled, Obfervations on the Structure and Functions of the Nervous Syftem; illuftrated with fifty-five copper-plate tables, containing one hundred and feventy-four figures. By Alexander Monro, M. D. Prefident of the Royal College of Phyficians, and Profeffor

ſor of Anatomy, Surgery, and Medicine in the Univerſity of Edinburgh.

The editor of this work, Mr Creech, bookſeller in Edinburgh, in an addreſs to the public, gives the following account of it:

"The above work is, without exception, the moſt ſplendid that has ever been produced from the Scottiſh preſs, and is ſo intereſting to philoſophy and ſcience, that it requires a farther explanation than can be given in a title page.

What has obtained the denomination of the *nervous ſyſtem*, is known to be that medium which is interpoſed between the living principle, and the different organs of which the bodies of animals are compoſed. The nerves are the inſtruments of ſenſation, and it is by their influence that all animal action is performed. They are the ſource of feeling, and they prompt all our propenſities, inſtincts, and movements. Hence a knowledge of their ſtructure, diſtribution, and functions, muſt be extremely important, both to the Philoſopher and the Phyſician, in the ſtudy of nature.

Though experiments, diſcoveries, and obſervations on the brain, medulla oblongata, ſpinal marrow, and nervous fibres, occupy the Au-

thor's chief attention in this work, yet the reader will find many uſeful and curious diſquiſitions with regard to the circulation of the blood, nutrition, ſenſation, muſcular motion, comparative anatomy, and many other articles neceſſarily connected with the general ſubject.

But, to give a more explicit idea of the nature of this publication, the editor has ſubjoined the contents of the chapters.

*Contents of the Work.*

Introduction.

Chap. I. Of the circulation of the blood within the head.

Chap. II. Of the membranes of the brain and cerebellum in general.

Chap. III. Of the communication of the ventricles of the encephalon with each other, as deſcribed by former authors.

Chap. IV. Of the communication of the ventricles of the encephalon with each other, by the author.

Chap. V. Of the abſorbent veſſels of the encephalon, and of the infundibulum and glandula pituitaria.

Chap.

Chap. VI. Of the ufe of the ventricles of the encephalon.

Chap. VII. Of the cineritious and medullary fubftances of the brain and cerebellum.

Chap. VIII. Of the fuppofed origin or formation of the nerves.

Chap. IX. Of the ftructure of the fpinal marrow.

Chap. X. Of the pia mater, the colour and texture of the nerves.

Chap. XI. Conclufions from the three laft fections.

Chap. XII. Order of the fubfequent chapters mentioned.

Chap. XIII. Of the appearance of the nerves in their courfe, and particularly of their folds or joints.

Chap. XIV. Of the connection of the nerves in their courfe in general.

Chap. XV. Of the plexufes of the nerves.

Chap. XVI. Of the connection of the nerves which run in oppofite directions, fo as to be joined by their fmall branches.

Chap. XVII. Of the connection of the feveral cords which compofe each of the nerves.

Chap. XVIII. Of the external covering of the trunks of the nerves, and of the cords or funiculi of which they confift.

Chap. XIX. Of the ganglia of the nerves.

Chap. XX. Of fpheroidal bodies, which, in fome animals, make part of the nervous fyftem.

Chap. XXI. Of fome principal nerves which have not been traced by authors with fufficient accuracy.

Chap. XXII. Of the appearance of the nerves viewed with the microfcope.

Chap. XXIII. Of the nature of the energy of the nerves.

Chap. XXIV. Of the ufes of the nerves in general.

Chap. XXV. Whether the nerves convey the nourifhment to our organs.

Chap. XXVI. Of fenfation.

Chap. XXVII. Of the termination of the nerves in mufcular organs, and, whether the mufcles poffefs a vis infita different from the vis nervea.

Chap. XXVIII. Of the manner and caufes of the actions of the mufcular organs.

These

These ſubjects are illuſtrated with 55 copper-plates, containing 174 figures."

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An ingenious correſpondent at Paris, in a letter to Dr Duncan, gives the following account of ſome intended publications at that place.

"Mr Vicq d'Azyr is preparing an anatomy of the brain. It will be a large work, conſiſting of near ſixty plates. Thoſe which I have ſeen are very beautiful, and I am told are exact. He propoſes, but that I believe is rather a diſtant ſcheme, giving plates of other parts of the human body, and perhaps of giving a complete ſyſtem. In a few months, M. Romeo de Liſle intends giving a new edition of his Criſtallography, which will be greatly enlarged, conſiſting of four volumes, and enriched with a great number of new plates. M. Daubenton alſo is going to publiſh. It is to be a Minerallogy, and I ſuppoſe is to ſuperſede the uſe of thoſe which are extant. I do not recollect hearing of any other publications.

Chemiſtry is the ſubject which is paid moſt attention to in this place; but I do not know of any new diſcovery in it which is conſiderable. M. Lavoiſier has made uſe of dephlogiſticated

air, for producing very great heats, and has invented a very ſimple machine, which ſupports a blaſt for an hour and a quarter. Platina is melted in a few ſeconds; and by continuing the heat, he has melted ſome of the moſt refractable precious ſtones. Mr Bertholet, another of our chemiſts, has lately wrote a paper upon the deſtructibility of vegetable acids, which he has read, or is going to read before the academy. He has obtained, by the ſpontaneous decompoſition of cream of tartar, the ſame quantity of alkali which is obtained by means of fire; ſo that it ſeems certain, that none is produced by that operation. He found that this acid was leſs deſtructible than that of vinegar, by expoſing ſimilar ſolutions of this ſalt, and of the ſal diureticus; and that the acid of the ſal acetoſella was ſtill leſs ſo than the cream of tartar; and alſo, that the antiſeptic qualities of theſe ſalts were in inverſe proportion to their deſtructibility; ſo that meat kept much longer in a ſolution of the latter, than in that of either of the former ſalts."

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Mr Andrew Bell, engraver in Edinburgh, to whoſe induſtry and profeſſional abilities, the medical

medical world is much indebted, for his edition of Albinus's tables of the muſcles, has been, for ſome time, engaged in preparing for publication, another important anatomical work. It will conſiſt of anatomical tables of the blood-veſſels and nerves, the brain, viſcera, and parts of generation of the human body. Theſe organs will be repreſented in above fifty copper-plates, including the elegant faſciculi of the celebrated Baron Albertus Haller, together with other neceſſary figures from Euſtachius, Ruyſch Trew, Du Verney, Monro, Zin, Walterus, *&c.* The plates ſelected from theſe elegant and very expenſive works have, we are told, been executed and arranged under the direction of Dr Monro. All of them are brought to ſuch a ſcale, as to be of the ſame ſize with Mr Bell's edition of Albinus; which, although of a much ſmaller ſize than the original, is ſtill a large folio. When therefore the preſent work is conjoined with the former, they will probably form one of the moſt complete, uſeful and accurate ſyſtems of anatomical tables that have yet been publiſhed.

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Dr Alexander Hamilton, Profeſſor of Midwifery in the Univerſity of Edinburgh, who has

lately

lately been presented with an honorary diploma of Doctor of Medicine from the University of St Andrews, is preparing for publication, a second edition of his Elements of the Practice of Midwifery, in which we are informed, there will be many alterations and additions, particularly in the practical part.

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A third volume of Dr Cullen's First Lines of the Practice of Medicine, has been for a considerable time past in the press at this place, and will probably be soon published.

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A new edition of the Pharmacopœia of the Royal College of Physicians in Edinburgh, prepared when Dr Monro was President of the College, is now almost printed off, and will be published in a few weeks.

* * * *

Mr John M'Nab, surgeon in the service of the Hudson's Bay Company, in a letter to Dr Duncan, dated at Fort Albany, 12th September 1782, gives the following information respecting a subject which has of late much engaged the attention of philosophers.

"Last

"Laſt winter, the degree of cold at which mercury freezes was aſcertained here with very great accuracy, by inſtruments ſent from the Royal Society. This curious phænomenon occurred regularly at forty degrees below the cypher in Fahrenheit's ſcale.

On the 7th of January 1781, a very aſtoniſhing and ſudden degree of cold was obſerved at Eaſt Mains-houſe, in Hudſon's Bay. At eight o'clock in the morning, when the barometer ſtood at 30, 46, a thermometer graduated to 250 degrees below the cypher, was obſerved to ſtand at 70 below the cypher. But in leſs than half an hour, it ſunk completely into the bulb. In a ſhort time, however, it began to riſe again, and in a few minutes after nine, it was obſerved at 250, the bottom of the ſcale; in the ſpace of half an hour, it roſe gradually ſo as to reach within forty degrees of the cypher."

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The medical practitioners at Liverpool have lately eſtabliſhed a plan for the inoculation of the poor, which, if properly imitated over the kingdom in general, would unqueſtionably be productive of very great national advantages. To demonſtrate this, we ſhall here preſent our readers

readers with the following addrefs, which was circulated among the inhabitants of Liverpool, on the fubject of general inoculation:

"There is perhaps no difeafe that has made more dreadful ravages among the human fpecies than the fmall pox. On its firft introduction into Europe, its progrefs was almoft every where marked by death; every rank of fociety was thinned, whole armies were cut off, and provinces depopulated. In the fucceffion of ages, experience, by introducing a more proper treatment of the diforder, has taught us to difarm this peftilence of part of its force; but its operation is yet fo fatal, as to entitle it to the firft place in the lift of thofe difeafes which are moft deftructive to human nature.

By calculations formed from the bills of mortality at Chefter in the year 1778, it was proved, that nearly a fixth part of all the deaths which happened in that city, was to be afcribed to the natural fmall pox. Similar calculations made at Leeds, in the beginning of the prefent year, have demonftrated, that this malady has been ftill more fatal there, having cut off one-fifth of all thofe who have died in that town, whether from difeafe or old age. And the calculations

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of Dr Dobſon ſhew, that the deaths to be aſcribed to the natural ſmall pox in Liverpool, have even exceeded the proportion of one in five.

Theſe facts are truly alarming, and more eſpecially when we conſider, that this deſtruction is not made among the aged and infirm, who, in the ordinary courſe of nature, could not long ſurvive, but among thoſe who are advancing towards maturity, on whom the hopes of their parents are founded, and on whom the future ſtrength of the community depends. Happily for mankind, Providence has not left us without defence againſt the havock of the ſmall pox. The practice of inoculation has been found to remove almoſt all the danger ariſing from the diſeaſe; and to make this practice univerſally adopted, it would ſeem, that nothing more is neceſſary, than to make its ſalutary influence univerſally known.

It is evident, from obſervations made in every part of the kingdom, that we ſhall not overrate the mortality of the natural ſmall pox, if we calculate that one in ſix of all whom it attacks is carried off in the courſe of the diſorder. But the moſt unfavourable account does not eſtimate more than one death in every hundred

caſes

cafes in which the infection is communicated by inoculation; and, according to many computations, there has not happened one in five hundred. Thefe truths, eftablifhed on the moft extenfive obfervations, require no comment; they fpeak more powerfully in favour of this practice, than any arguments that could poffibly be urged.

The wealthier inhabitants of this town have, in general, for many years paft, availed themfelves of the advantages of inoculation; but it has made little progrefs among the poor, for reafons which are fufficiently obvious. Many of them are ignorant of the benefit refulting from it; many of them, no doubt, are prejudiced againft it; and fome of them, it is to be feared, have been prevented from inoculating their children, by a doubt of procuring proper medical affiftance. If, from fuch caufes, the progrefs of inoculation among the lower claffes has been obftructed, the misfortune to the community has been of no trifling nature. In the town of Leeds, containing eighteen thoufand inhabitants, it has been found, that one hundred die yearly of the natural fmall-pox; and we may conclude, that this difeafe cuts off two hundred

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at leaſt every year in this town, which contains double the number of inhabitants, and where the contagion may be ſaid to be always preſent, from the great communication with other parts, and from the partial practice of inoculation among the higher ranks. This reaſoning is confirmed by facts, Dr Dobſon having found, in the courſe of three years obſervations, that upwards of two hundred die annually in Liverpool of the natural ſmall pox. According to this computation, four thouſand perſons at leaſt have been carried off by the natural ſmall pox in the town of Liverpool within the laſt twenty years. And when we conſider that ſcarcely one in two hundred dies under inoculation, we cannot but lament over thoſe four thouſand victims, moſt of whom might have been reſcued from the grave, and, by their labour, and by the increaſe of their offspring, have added to the ſtrength and opulence of the nation. Theſe obſervations may be extended from the town of Liverpool to the nation at large. In London alone, within the laſt fifty years, nearly one hundred and ten thouſand perſons have died of the natural ſmall pox; and it is probable, that Great Britain, during the ſame period, has ſuffered

ſered the loſs of a million of inhabitants from this dreadful diſeaſe.

Truths of ſo important and ſo melancholy a nature, it is hoped, will ere long attract the attention of the legiſlature; but in the mean time it is certainly the duty of every individual to exert his abilities in promoting, within his own circle, the general practice of inoculation; by which means alone we ſhall be able to prevent the mortal ravages which have been deſcribed.

The attention which has been paid in Liverpool to the relief of the poor, when afflicted by diſeaſe, reflects the higheſt honour on the charity and munificence of its inhabitants. And there is every reaſon to believe, that the humanity of the more opulent part of the community will induce them to promote, by every proper method, a plan for a *general inoculation of the poor*, from whoſe labour and induſtry their wealth and conſequence are derived. If the facts now advanced be founded on truth (and the public are invited to examine them thoroughly), it is hoped that no good man will remain unintereſted in the ſucceſs of ſuch a propoſal. As the matter now ſtands, inoculation in Liverpool is confined almoſt excluſively to the

higher

higher ranks. But this practice, though beneficial to them, it is much to be feared, proves a serious misfortune to the inhabitants at large; for by this means the contagion is never suffered to be extinguished, and the children of the poor, catching the infection in the natural way, fall victims to the disease. To imagine that any person, who approves of inoculation in his own family, should oppose its being extended to every class of men, is to suppose a degree of cruelty and injustice that few would chuse to avow. From the enlightened inhabitants of Liverpool a conduct more liberal may be expected. They will wish that the blessings which they themselves reap from this practice may be diffused among the poor and helpless; for this purpose their active influence will be necessary, and there is every reason to hope that they will be forward in promoting so generous and so useful a plan.

It is not the design of this address to examine all the objections which may be made to a general inoculation. Most of these will, on consideration, appear to be founded on prejudice and error. There is one only which deserves to be particularly mentioned: It may be said, that

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ſince ſome perſons, from miſtaken principles, may obſtinately refuſe to be inoculated, or to inoculate their children, who yet cannot remove themſelves or their families from town, it would ſeem unjuſt, without their conſent, to expoſe them to the danger which they might incur during a general inoculation. But this objection is likewiſe founded on a miſtake, which it will be proper to explain. Such perſons as are unhappily prevented from being inoculated, cannot reaſonably expect, in the preſent ſtate of things, long to eſcape the natural ſmall pox. They muſt be ſeized with the diſeaſe, without warning, and without preparation. But if the plan for a general inoculation at ſtated periods be adopted, they will be aware of their danger, and have it in their power to prepare for the diſeaſe before it commences. They will likewiſe, if they catch the infection, have the ſmall pox in the moſt favourable ſeaſon of the year; whereas now they are liable to be infected in every ſeaſon. The quantity of contagion generated is thought to be in proportion to the number of the puſtules; and it is well known, that, taking one patient with another, the number of puſtules is ten times greater when the diſeaſe is contracted

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in the natural way, than when it is communicated by inoculation. If this be true, there will be as much danger from a hundred patients in the natural ſmall pox, as from a thouſand under inoculation.—And hence, if there be twelve hundred perſons ſeized with the natural ſmall pox in Liverpool in the courſe of the year (and the number cannot be eſtimated lower), theſe will produce as much contagious matter as twelve thouſand who have been inoculated. But it cannot be ſuppoſed that there are now ſix thouſand of the inhabitants of Liverpool who have not had the ſmall pox; and if inoculation become once general, the perſons to be inoculated yearly will not exceed a fifth part of that number.

Thus, ſhould there remain a few perſons who are prevented by prejudice from reaping the benefit of inoculation, it will be their intereſt to promote the general practice of it in the town; ſince, by ſuch means, the quantity of contagious matter will be greatly diminiſhed, the danger of contracting the infection will be leſſened by being foreſeen, and their ſecurity will be exceedingly increaſed when there ſhall remain only a few perſons in Liverpool liable to be affected by

the disease. To these reasonings it may be added, that plans for a general inoculation at Chester and Leeds have been carried into execution with the most salutary effects.

The gentlemen of the medical faculty in this town having, at a general meeting, taken this important subject under consideration, were unanimously of opinion, that the general practice of inoculation in Liverpool, at stated periods, would be of the utmost advantage. They therefore considered themselves bound, as good men and good citizens, to lay their opinion, and the grounds on which it is founded, before the public. And to give this scheme every assistance in their power, they offer their attendance gratis to all who are unable to pay for it. They know that a proposal which aims at saving the lives of their fellow-creatures will come with peculiar propriety from them; they are sensible that such a proposal will at all times be favourably received; but they hope it will meet with particular attention at this important period, when the strength of the nation is wasting under the calamities of war, and our countrymen are perishing by the sword, or by the more de-

structive

ſtructive influence of climate, in every quarter of the globe."

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A large and important botanical work is at preſent carrying on in Ruſſia under the protection of the Empreſs. To give our readers a proper idea of the nature of this undertaking, we ſhall here preſent them with the following account of it, written by Profeſſor Pallas, under whoſe direction it is to be executed.

*Annonce d'un Ouvrage Botanique ſur les Arbres, Arbuſtes et Plantes de l'Empire de Ruſſie, qui ſera publié par Ordre et ſous les Auſpices de ſa Majeſté Impériale.*

Tandis que l'Auguſte Legiſlatrice du Nord s'occupe du bonheur de ſes ſujets, par l'introduction de nouvelles loix, d'une adminiſtration de juſtice et de finance plus analogue à ſes grandes vuës, par la reforme de l'education nationale, l'encouragement des ſciences, des arts et du commerce, par ſes ſoins enfin de former l'eſprit des Princes qui doivent un jour devenir les émules de ſa grandeur; cette Souveraine ſage et eclairée ne dedaigne pas les details qui peuvent tendre à la perfection de ſon ouvrage.

Sa Majesté Imperiale s'occupant entre autres d'un nouveau reglement pour la conservation des forêts de son empire, et desirant en même tems de perfectionner l'economie rurale et de soulager l'humanité par une connaissance precise des plantes utiles que le sol de son vaste empire produit; elle a conçu l'idée d'un ouvrage botanique qui put remplir ce but: Idée digne de l'esprit createur de l'Auguste Protectrice des Sciences, dont la munificence pour l'avancement des connaissances humaines a brillé depuis son avenement au trône, par le renouvellement de l'academie des sciences et l'institution de celle des arts; par ces voyages dispendieux d'observateurs, tant astronomes, que naturalistes, dont le nombre et l'importance a surpassé tout ce que les autres nations ont fait dans ce siècle; par les encouragements accordés sans nombre aux savans etrangers et regnicoles; par l'emploi de sommes annuelles considerables pour la traduction des meilleurs ouvrages de tout genre en langue nationale; enfin par l'illustre exemple qu'elle a donné elle même dans la carrière des lettres.

Sa Majesté Imperiale voulant que l'ouvrage projetté soit entierement executé à ses depens, dans

dans l'intention ſeule de contribuer au bien-être et à l'inſtruction des hommes; on n'a ni ſouſcription, ni autre engagement à propoſer au public; mais puiſque tous ceux, que ce grand ouvrage intereſſera, doivent, en y applaudiſſant, deſirer d'avance quelque notion de ce qu'on doit en attendre, j'ai crû qu'il était de mon devoir de ſatisfaire la curioſité du public par l'eſquiſſe ſuccincte que j'en vais donner. Voici en peu de mots le plan, tel qu'il à été approuvé par ſa Majeſté Imperiale.

L'ouvrage pour lequel ſa Majeſté Imperiale a fait aſſigner les fonds neceſſaires, ſera executé avec tout le luxe typographique qui convient à la magnificence d'une telle enterpriſe. Les planches qui doivent repreſenter les plantes de grandeur naturelle, ſeront du grand format des beaux ouvrages botaniques de Mr Jacquin, legerement gravées et coloriées avec tout le ſoin poſſible ſur des originaux faits d'après nature. Le texte qui contiendra les deſcriptions et details neceſſaires ſur la nature et l'uſage de toutes les plantes indigenes, paroitra en Ruſſe et en Latin, de la même grandeur & ſur le même papier de Hollande que les planches.

L'objet principal de l'ouvrage que ſa Majeſté Imperiale veut genereuſement donner à ſon

peuple et à la republique des lettres étant l'utilité publique, les plantes immediatement utiles à l'humanité tiendront donc le premier rang dans l'execution. Pour ne pas rendre l'ouvrage inutilement volumineux on retranchera d'abord de la ſuite des planches les arbres et les plantes les plus generalement connues par des noms vulgaires, ſurtout lorſqu'il ne ſauroit reſulter de cette omiſſion aucune mepriſe dangereuſe pour l'humanité. Le texte n'en donnera pas moins les details utile à connaitre ſur la nature et l'uſage de ces eſpeces vulgaires. Le même ſera obſervé pour les eſpeces auſſi communes en Europe qu'en Ruſſie, dont on trouve les figures dans les ouvrages botaniques les plus connus, et qui n'annoncent d'ailleurs aucune vertu particulière.

On s'attachera au contraire à donner des gravures auſſi parfaites que poſſible de toutes les eſpeces affectées à l'empire, ou dont l'utilité n'eſt que peu connue dans le pays qui les produit, & qui ſouvent par cette raiſon même n'ont pas de noms uſités. Les eſpeces purement curieuſes & rares ſeront un objet ſecondaire, qu'on aura ſoin de remplir à la ſatisfaction des botaniſtes.

D'après ce plan j'eſtime que cinq à ſix cent planches gravées epuiſeront à peu près, dans le total

total des vegetaux indigenes de l'empire Ruſſe, toutes les eſpeces utiles & rares dont on pourra deſirer les figures. De toutes celles qui peuvent remplir une planche de la grandeur ci-deſſus enoncée, on ne fera repreſenter qu'une ſeule eſpece par planche, ayant ſoin d'en donner non ſeulement les fleurs, mais auſſi le fruit, & les varietés accidentelles qu'on aura obſervées. Mais pour les plantes naines & petites, qui ſont d'un même genre, par exemple; les ſaxifrages, les mouſſes, *&c.* on ſe permettra de placer pluſieures eſpeces ſur la même planche, pour mieux la remplir.

Dans un ouvrage de la nature de celui-ci il n'eſt pas poſſible d'obſerver aucun ordre methodique. Mais on tachera du moins de placer enſemble les eſpeces d'un même genre & les premiers cahiers contiendront ſurtout les arbres & arbuſtes remarquables. Chaque cahier ſera de cinquante planches, dont deux pourront avec le texte former un volume. On ne peut encore fixer le terme quand le premier cahier pourra être achevé; mais on tâchera d'en fournir du moins un par an & de preſſer l'ouvrage autant que le nombre d'artiſtes exercés pourra y ſuffire.

Le choix que ſa Majeſté Imperiale a daigné faire de moi, pour executer, ſous ſes auſpices, un

un ouvrage de cette importance & d'une utilité ſi generale m'honore infiniment; auſſi employ-erai-je tous mes efforts pour m'en rendre digne; & ſi l'execution pourroit egaler mon zèle, j'o-ſerois eſperer d'enfaire un monument digne de la protection & du ſiècle de Catherine Seconde.

*S. Péterſbourg, ce* 28 *Juillet v. St.* 1782.

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The annual prize of the year 1781, given by the Harveian Society of Edinburgh, with the view of promoting experimental inquiry among the ſtudents of medicine at that place, was adjudged to a diſſertation, to which was prefixed the following motto:

*Valeat quantum valere poteſt.*

Upon opening the ſealed letter which accompanied this diſſertation, it was found to be written by Dr Jonathan Stokes of Worceſter-ſhire. The prize was publicly delivered to Dr Stokes, in the hall of the Diſpenſary of Edinburgh, by Dr Webſter, with a ſuitable addreſs, recommending to the ſucceſsful candidate, and to every diligent medical ſtudent, either ambitious of obtaining literary honour, or anxious to improve his profeſſion, the inveſtigation of truth on the ſure baſis of experiment. Dr Webſter at the

ſame time announced as the prize-queſtion for 1782, "An inquiry concerning the nature and properties of milk." At the above annual meeting, inſtituted in honour of the illuſtrious Dr Harvey, and held on the anniverſary of his birth-day, the Harveian oration for 1782, the ſubject of which was an account of the life, writings, and character of the late Dr Robert Whyte, was delivered by Dr Duncan.

Among the diſſertations given in to the Secretaries of the Harveian Society by the 1ſt of January 1783, on the ſubject of milk, the judges being divided in opinion as to the comparative merit of two diſſertations, it was determined that an equal prize ſhould be beſtowed on each. To the one was prefixed, for a motto,

*Lac mihi non æſtate novum, non frigore deſit*;

to the other,

*Quem ſi non tenuit magnis tamen excidit auſis.*

Upon opening the ſealed letters which accompanied them, the firſt was found to be written by Mr Samuel Ferris of Wiltſhire, and the laſt by Mr Richard Kentiſh of Yorkſhire. The prizes will be delivered to theſe gentlemen by Dr Duncan after the Harveian oration for 1783, which will be given by Dr Webſter.

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The ſubject propoſed for the prize of 1783, is " An inquiry concerning the nature and properties of the Peruvian bark, and the comparative powers of the red and quilled Peruvian bark." Diſſertations on this ſubject, competing for the prize, muſt be delivered to Drs Duncan or Webſter, Secretaries to the Harveian Society, on or before the 1ſt of January 1784. To each of the diſſertations a motto muſt be prefixed, and the ſame motto muſt be put upon the back of a ſealed letter containing the name of the author. All the diſſertations, excepting thoſe to which prizes are adjudged, will be returned to any place that may be directed, with the letters which accompany them unopened. Thus the names of unſucceſsful candidates are known only to thoſe to whom they may themſelves communicate it.

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On the 13th of March 1782, died at Edinburgh, Mr Jacob Pattiſſon, ſtudent of medicine. His unwearied induſtry, extenſive knowledge, happy genius, and amiable manners, conciliated to a very high degree the affection and eſteem of all who had the pleaſure of his acquaintance. His remains are interred in the church-yard of

St

St Cuthbert's chapel at Edinburgh, near thoſe of the late ingenious Mr Charles Darwin, in the burial-ground which belongs to Dr Duncan. An elegant monument is erected to his memory by the companions of his ſtudies, his fellow-members in three literary ſocieties, in all of which he made a very diſtinguiſhed figure. They have expreſſed their regard for his memory in the following inſcription, which is cut on a marble tablet in the baſis of the monument.

Hoc in agello funeſto ſepultæ ſunt reliquiæ
JACOB PATTISSON de WITHAM in comitatu de ESSEX,
Qui, in Academia Edinenſi,
Non minus fauſte quam diligenter, in rem medicam incumbebat:
Florentem ætate,
Ob ingenii acumen, moreſque imprimis amabiles,
Omnibus quibus notus cariſſimum,
Febris lethalis aggreſſa,
Procul patria domo, inter lachrymas ac ſuſpiria ſociorum,
Subito oppreſſit.
Hocce monumentum, tres Societates,
REGIA MEDICA nempe, SPECULATIVA, et PHYSICA,
Quarum omnium ſimul Præſes fuit,
Non ut famæ ejus conſulerent, quippe illius parum indigæ opis,
Sed ut animos, nec amicitiæ, nec meriti inſignis,
Immemores oſtenderent,
Conjunctim exſtruendum curarunt.
Obiit III. Idus Martii, A. D. 1782. An. Æt. 23.

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The Royal Society of Medicine at Paris, have propofed the following prize-queftion: What are the difeafes that prevail moft commonly among the troops during the fummer, and in very hot weather? What is the moft fimple and leaft expenfive method of treating them? And *laftly*, What are the means to be employed for preventing or moderating their effects in very hot climates, as the Windward or Leeward Iflands? The differtations of competitors, written in the Latin or French languages, muft be fent to M. Vicq d'Azyr, fecretary to the Society, by the 1ft of December 1783.

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The Royal Academy of Sciences at Paris, have offered a premium of 2400 livres to the perfon who fhall difcover the eafieft and cheapeft procefs for decompofing fea-falt, and extracting the alkali that ferves as its bafis, free from any acid or other combination, provided the value of this mineral alkali does not exceed the price of that which is procured from the beft foreign foda.

The differtations on this fubject, written in French or Latin, muft be fent to the Marquis

de

de Condorcet, ſecretary to the Academy, before Eaſter 1783.

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The Dutch Society of Sciences at Haerlem, have propoſed the following inquiry as the ſubject of a prize-diſſertation: 1. Une deſcription de l'appareil le plus propre à faire des experiences ſur l'air condenſé, de la façon la plus commode et la plus aſſurée. 2. De rechercher avec cet appareil l'action de l'air condenſé, dans de cas differens de s'occuper entr' autre de la vie animale, de la croiſſance des plantes et de l'inflammabilité des differentes eſpeces d'air. Et 3. D'expoſer quelles ſuites, ou quelles nouvelles connoiſſances, on pourroit en deduire.

Diſſertations on this ſubject muſt be tranſmitted to Mr C. C. H. Vander Aa, ſecretary to the Society, by the 1ſt of January 1785.

By the ſame Society, the following queſtion alſo is propoſed:

Par quelles regles de conduite, fondées ſur la theorie, & confirmées par l'experiences, pourroit-on conſerver la ſanté de ceux, qui, faiſant le voyage des Grandes Indes, eprouvent les effets pernicieux d'un changement extreme de climat, & de façon de vivre? Independamment des

des regles generales, pourroit-on en indiquer des particulières que varieroient ſuivant les differentes claſſes des individus, aux quelles on devroit les appliquer?

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Dr Hawes, at the cloſe of his lectures on animation, propoſed the following queſtions for two prize-medals, ſubject to the uſual regulations.

Are there any poſitive ſigns of the extinction of life? If ſo, what are they? Or if there are not, is putrefaction a certain criterion of death?

The diſſertations on this ſubject were directed to be left, before the end of September 1782, with Dr Fothergill, at his houſe in Harpur-ſtreet, Red Lion Square, who, together with Dr Letſom, Jebb and Whitehead, were appointed to adjudge the medals. We have not heard whether theſe prizes have yet been beſtowed on any competitors.

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The Royal Academy of Sciences at Paris have propoſed the following ſubject for an extraordinary prize-diſſertation for the year 1783.

De determiner la nature et les cauſes des maladies aux quelles ſont expoſés les doreurs au feu,

feu, ou fur métaux; et la meilleure manière de les préferver de ces maladies, foit par des moyens phyfiques, foit par des moyens méchaniques.

Differtations on this fubject are ordered to be tranfmitted to the Secretary of the Academy by the 15th of February 1783.

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We hear, that an improved edition of Dr Lewis's New Difpenfatory will be publifhed in Edinburgh during the courfe of this year. The improvements in chemiftry fince his time are numerous and important. The Edinburgh Pharmacopœia has been twice materially reformed. Several new medicines have been thought worthy of a place in the Materia Medica; others have been expunged; and the operation of many medicines on the human body are now explained in a very different manner. Thefe confiderations render it very defirable, that a book on fo good a plan, and fo univerfally read, fhould be improved to the utmoft. This edition is alfo to have feveral ufeful tables, and a fet of extemporaneous prefcriptions, ufed by the moft eminent practitioners in London and Edinburgh, after the plan of Dr Berkenhout's Pharmacopœia.

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On the 19th of January 1782, died at London, in the feventy-eighth year of his age, Sir John Pringle, Bart. Phyfician-extraordinary to the King, and Phyfician to the Queen. During a life fpent in active induftry, Sir John Pringle not only arrived at the head of his profeffion in the metropolis of Britain, but obtained the efteem of every genuine lover of fcience; and, as an indubitable teftimony of the refpect in which he was held by the philofophical world, he was elected Prefident of the Royal Society of London. The duties of this important and honourable office he difcharged for feveral years with the moft faithful punctuality. But finding that the approaches of old age rendered the fatigues of bufinefs greater than he could eafily accomplifh, he not only retired from the practice of medicine, but alfo from the prefidentfhip of the Royal Society, with the intention of fpending the evening of life among a circle of felect friends. This circumftance, as well as his judicious laft will, is a ftronger proof of unimpaired judgment, than if he had continued to fill an office to which his years had rendered him unequal. He bequeathed among his relations a confiderable

considerable fortune; which was ſo diſtributed, that, while his neareſt relations had no ground for complaint, it will ſerve to afford comfort during the remainder of life to ſome others to whom fortune had been leſs favourable. He has left to the College of Phyſicians in Edinburgh, his Medical Annotations, conſiſting of ten volumes in quarto, principally written with his own hand. But theſe are intended ſolely for the private uſe of the members, and are given on the expreſs condition, that they ſhall never be publiſhed: Not that he could have any deſire of with-holding from the medical world what would in any degree tend to the improvement of the profeſſion; but becauſe he judged ſeveral caſes and obſervations which they contained, in different reſpects unfit for the public eye. The obſervations which he publiſhed on army diſeaſes many years ago, have extended his fame through Europe, and will tranſmit his name to poſterity as a learned and intelligent phyſician.

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On the 29th of April, died at Hackney, near London, Dr Thomas Dawſon, formerly Phyſician to the London Hoſpital, and deſervedly celebrated for ſeveral uſeful medical publications.

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On the 13th of May, died at London, Dr Daniel-Charles Solander. He was a native of Sweden, and educated at the univerſity of Upſal, where he obtained the degree of Doctor of Medicine. That of Doctor of Laws was afterwards conferred upon him by the univerſity of Oxford. Dr Solander's ſtrong propenſity for the purſuit of natural knowledge was probably not a little increaſed by the patronage and encouragement of his preceptor the celebrated Sir Charles Linnæus; while the zeal which he ſhewed for theſe branches of literature, particularly for botany, conciliated the eſteem and affection of that eminent profeſſor. When Dr Solander went from Upſal to London in the proſecution of his ſtudies, Linnæus furniſhed him with introductory letters to thoſe learned men who were his principal correſpondents in the metropolis of Britain. In theſe letters, among other ſtrong expreſſions of regard, he is ſaid to have employed the following ſentence: "*Omnium* "*diſcipulorum, quos unquam habui, dilectiſſi*-"*mus.*" The footing thus obtained, Dr Solander ſoon improved by agreeable manners and extenſive knowledge. In no long time he con-

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tracted intimacies with the moſt eminent philoſophers in London, particularly with Sir Joſeph Banks, the Preſident of the Royal Society, and one of the firſt literary characters in Europe. He was the companion of Sir Joſeph in thoſe different voyages which he made for the ſole purpoſe of extending natural knowledge, and which will do immortal honour to the memory of both. When he was not thus engaged, his time was principally ſpent in the Britiſh Muſeum, where he had obtained an appointment in every reſpect ſuited to his philoſophical diſpoſition. And in diſcharging that part of the duties of his office which led him to ſhow that moſt valuable collection to different viſitors, it was hardly poſſible to conceive a more agreeable union of the manners of the gentleman with the knowledge of the philoſopher. While he was engaged in converſation with his uſual chearfulneſs at the houſe of his friend Sir Joſeph Banks, he was ſuddenly attacked with a fit of apoplexy, which, in a few days, notwithſtanding the beſt medical aſſiſtance, terminated in his death; an event ſincerely regretted by all who had the honour of his acquaintance, and by which the lite-

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rature and philosophy of London sustained a real loss.

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On the 16th of May, died of a pulmonary consumption, at Reading in Berkshire, on his way to Ireland, Dr Dennis Ryan, late assistant Physician to the Military Hospital in Jamaica, a young man of great genius and uncommon industry. He communicated to the public, through the channel of this work, and of the London Medical Journal, several important observations; and while he prosecuted his studies at Paris, he made a Latin translation of Dr Duncan's Medical Cases, which, we hear, will soon be published under the direction of Dr Sandifort of Roterdam, brother to the eminent Professor Sandifort of Leyden.

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On the 13th of August, died at Naples, Dr Alexander-Monro Drummond, a young Physician of great learning and very uncommon talents. He was born and educated at Edinburgh. After the necessary instruction in the languages, and other preliminary branches of knowledge, he betook himself to the study of medicine; and during the course of ten years, he was peculiarly

ly remarkable for the moſt regular attendance to every medical teacher, both public and private, and for unremitting attention in the purſuit of all the branches of medical ſcience. In the year 1771, he obtained the degree of Doctor of Medicine from the univerſity of Edinburgh, with uncommon marks of diſtinction from that learned body. On that occaſion, he publiſhed an elegant and elaborate inaugural diſſertation, entitled, *Commentarius de Febribus arcendis diſcutiendiſque.* Upon leaving Edinburgh, after remaining ſome time in London, where he cultivated the acquaintance and obtained the eſteem of many learned men, he went to the continent of Europe in company with the celebrated Dr Ingenhouze. After viſiting Paris, Leyden, Goettingen, Vienna, and other places moſt remarkable for eminent ſchools of medicine, he joined the Earl of Winchelſea and Lord Algernoon-Percy on a tour into Greece, Egypt, and other parts of the Turkiſh dominions. About the time when he was leaving Italy on this expedition, he received information that he was elected Profeſſor of the Theory of Medicine in the univerſity of Edinburgh, which had become vacant by the death of Dr Gregory, and the advancement of

Dr Cullen to the practical chair. This, however, he did not consider as an object sufficient to interrupt his intended plan. And the patrons of the university, unwilling to lose such an addition to their medical college, resolved to keep the place vacant till his return. They appointed Dr Duncan to fill the theoretical chair as an interim teacher; and for two years he discharged the duties of that office much to the satisfaction of audiences uncommonly numerous for the lectures on the theory of medicine even in the university of Edinburgh. Upon Dr Drummond's return to Europe, having formed greater plans, he declined accepting of the professorship at Edinburgh. He communicated to his friends an intention of settling in London; but, for private reasons, he resolved to reside for some time in Naples. There he was very highly esteemed, and practised medicine, both among the natives and British visitors, with such singular success, that his advice was ardently sought for in cases of the greatest difficulty and danger. But although his own circumstances were very narrow, he could never be prevailed upon to accept of a fee even from the most opulent of his countrymen.

countrymen. Among other literary purſuits at Naples, Dr Drummond is ſaid to have been engaged in writing an account of his travels. But an accidental fall from his horſe, by which his ſkull was fractured, proved the cauſe of his death at an early period of life, and has probably deprived the world of ſome valuable publications.

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On the 3d of January 1783, died ſuddenly, at Edinburgh, Dr Thomas Young, profeſſor of midwifery in the univerſity, and a practitioner of the firſt eminence in that city. When Dr Young was firſt appointed profeſſor, he was one of the members of the College of Surgeons in Edinburgh. But afterwards reſolving to join the College of Phyſicians, he took the degree of Doctor of Medicine; on that occaſion he wrote an excellent experimental diſſertation *De Lacte*, in which are contained many important and uſeful obſervations reſpecting that fluid. He taught and practiſed midwifery for many years with great reputation. He wrote ſeveral ingenious papers on different medical ſubjects, particularly on the puerperal fever, which were read in the Philoſophical

Philoſophical Society of Edinburgh, and may probably be publiſhed in courſe of the future volumes of their tranſactions, the Phyſical and Literary Eſſays. Dr Young, ſome years before his death, finding that his academical duties and private practice were a greater fatigue than he could eaſily overtake, and being deſirous of introducing into the univerſity, as his coadjutor and colleague, Dr Alexander Hamilton, who had acquired very high reputation in the line of midwifery, both as a teacher, a practitioner, and an author, he reſigned his profeſſorſhip, and was in a few days afterwards again elected to that office in conjunction with Dr Hamilton. In this, while he demonſtrated that liberality of ſentiment which eminently diſtinguiſhed his character, by overlooking a former rivalſhip, he conſulted in a high degree the intereſt of the univerſity and the public, by introducing among the number of profeſſors a man whoſe reputation was already eſtabliſhed, and who had given abundant proof of uncommon abilities as a teacher, by having for ſeveral years given private lectures with great ſucceſs.

Dr Young, when apparently in a ſtate of the beſt health, was ſuddenly attacked with a fit of apoplexy,

apoplexy, in the houſe of an acquaintance, and died in a few hours. He had not, however, left to the laſt the deſtination of a very ample fortune which he poſſeſſed. Having no children, by a will found in his repoſitories, he directed, after a handſome proviſion for his wife, the diviſion of it among his relations; and, with no leſs good ſenſe than humanity, he made particular proviſion for thoſe who ſtood moſt in need of his aſſiſtance.

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About the middle of February, died at Liſbon, where he had gone for the recovery of his health, Dr Peter Duguid-Leſlie, phyſician at Durham, where he had practiſed with reputation for ſeveral years, and lived with much eſteem. He was a young man of genius and induſtry, and ardent in the purſuit of medical and philoſophical knowledge. Upon taking the degree of Doctor of Medicine in the univerſity of Edinburgh, in the year 1775, he publiſhed an inaugural diſſertation *De Caloris Animalium Cauſa*, in which he adopted and defended a hypotheſis concerning animal heat propoſed and taught by Dr Duncan. His obſervations on this ſubject he afterwards preſented to the public in

in an Engliſh dreſs, entitled, A philoſophical Inquiry into the Cauſe of Animal Heat, with incidental obſervations on ſeveral philoſophical and chemical queſtions connected with the ſubject. From that work Dr Leſlie acquired conſiderable reputation in the philoſophical world; and not long after it was publiſhed, he had the honour of being elected a member of the Royal Society of London. He was engaged in another literary work, on the ſubject of fire, when he was attacked with the influenza, about the beginning of June 1782. This terminating in phthiſis pulmonalis, at length proved fatal.

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On Monday the 31ſt of March, died at London, Dr William Hunter, Phyſician-extraordinary to the Queen, Teacher of Anatomy in London, and member of many different learned ſocieties for the advancement of uſeful knowledge.

This celebrated anatomiſt was a native of Kilbryde in the county of Lanerk. His father, deſigning him for the church of Scotland, ſent him, at a proper age, to the college of Glaſgow; but having ſpent five years in regular academical attendance there, he began to feel ſtrong objections to theological ſtudies; and happening to

become

become acquainted with Dr Cullen, the present celebrated Profeſſor at Edinburgh, who was at that time juſt eſtabliſhed in practice at Hamilton, he was perſuaded by Dr Cullen to apply himſelf to phyſic. Dr Cullen's friendſhip made it eaſy to obtain his father's conſent. He was taken into the Doctor's houſe, where he lived two years. Dr Cullen at all times was happy in communicating knowledge to his pupils, and ſtill more remarkable for inſpiring them with an enthuſiaſtic love of ſtudy. This was a moſt fortunate circumſtance for Mr Hunter, whoſe uncommon application and improvement in the line of his profeſſion, in a ſhort time recommended him to the notice and patronage of profeſſors of the firſt anatomical celebrity.

In Scotland, if we except Edinburgh, there is not that diſtinction between the branches of phyſic that prevails in England. The phyſicians generally diſpenſe their own medicines, and likewiſe practiſe ſurgery. Dr Cullen, though an enthuſiaſtic cultivator of phyſic and chemiſtry, had always a diſlike to the chirurgical part of his practice. It was therefore agreed between him and Mr Hunter, that the latter ſhould go firſt to the college at Edinburgh, and then

to

to London, in order to ſee the practice of the hoſpitals, and improve himſelf in anatomy and ſurgery, and that, at his return to Hamilton, a partnerſhip ſhould take place between them.

Mr Hunter brought with him to London a letter of introduction to his countryman Dr James Douglas, who was at that time in high reputation as a phyſician and man-midwife, and who is well known by his Treatiſe on the Muſcles, and other works.

Dr Douglas recommended it to him to attend St George's hoſpital, and Dr Nicholl's lectures, as a perpetual pupil, for the opportunity of learning all his arts in making anatomical preparations. And at the end of the ſeaſon, when he was preparing to ſet out on his return to Hamilton, Dr Douglas perſuaded him to change his propoſed plan, and prevailed on him to go to Paris and to Holland with his ſon, at that time a ſtudent of phyſic, and afterwards to ſettle in London, and to teach anatomy. Mr Hunter communicated this propoſal, and the arguments which Dr Douglas uſed, to Dr Cullen, who, believing that it was a fairer proſpect, with his uſual generoſity, readily gave his conſent.

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After the death of his patron Dr Douglas, Mr Hunter began to teach anatomy in London. His eafy, agreeable manner of lecturing, the new and clear points of view in which he placed the different parts of his fubject, added to the number, and, till then unknown, elegance of his preparations, drew to him a great number of pupils. He foon became eminent in his profeffion, enriched the art with many important difcoveries, and for many years fhone unrivalled in the wide and fruitful field of anatomy.

In or about 1747, Mr Hunter was admitted a member of the Surgeons Company. His anatomical reputation foon procured him an extenfive practice, particularly in midwifery; and when he came to be eftablifhed, the Univerfity of Glafgow, proud to reckon him amongft her fons, complimented him with the degree of Doctor of Medicine. In 1756, he was admitted a member of the College of Phyficians, and foon afterwards was elected Fellow of the Royal Society, having made himfelf known by an ingenious paper, "on the Structure of Cartilages," publifhed in the Philofophical Tranfactions fo early as 1743. He has fince that, at different times, communicated

communicated ſeveral other valuable papers to the Society.

When our preſent amiable Queen became pregnant, Dr Hunter was conſulted, and, at the ſame time, honoured with the appointment of Phyſician-extraordinary to her Majeſty. When the Royal Academy of Arts was founded, he was nominated Profeſſor of Anatomy to that inſtitution; and lately, upon the death of one of the eight foreign aſſociates of the Academy of Sciences at Paris, he was elected to ſupply the vacancy. To conſider him as a teacher, is to view him in his moſt amiable character; perſpicuity, unaffected modeſty, and a deſire of being uſeful, were his peculiar characteriſtics; and he was moſt happy in blending the *utile* with the *dulce*, by introducing appoſite and pleaſing ſtories, to illuſtrate and enliven the more abſtruſe parts of anatomy; thus fixing the attention of the volatile and the giddy, and enriching the minds of all with uſeful knowledge.

Employed, as Dr Hunter had been, for a long ſeries of years, by perſons of the higheſt diſtinction, and conſulted as an anatomiſt in difficult caſes of ſurgery by all ranks of people, and from every part of the kingdom, his gains muſt have been

been immenſe; and he employed them in a manner the moſt liberal, for the improvement of ſcience. Having never married, and being averſe to oſtentation and luxury, he always conducted his domeſtic expences on a plan adapted to his profeſſion; and his accumulated fees were expended in erecting and furniſhing a muſeum, which, conſidered in every point of view, is certainly not to be equalled in Europe. We ſhall ſay nothing of the anatomical preparations it contains, becauſe it will be eaſily conceived, that a perſon of the Doctor's diſpoſition, who had ſpent near half a century in the purſuit of a favourite object, muſt have amaſſed every thing moſt curious and valuable on that ſubject. But the ſpecimens of human and comparative anatomy, form only a ſmall part of the *Hunterian Muſeum.* His collection of ſcarce and valuable books is to be equalled only by royal libraries; and his cabinet of medals, particularly Greek and Roman, is far more valuable than even the imperial collection at Vienna.

The expence of building his houſe and muſeum in Windmill-ſtreet, and furniſhing the latter, is ſaid to have approached near to 100,000l. His Plates of the Gravid Uterus, and his other

publications, sufficiently evince his profound knowledge and unwearied industry; and the Description of his Greek Coins demonstrates his boundless munificence. It is much to be feared, that the other works he had in hand at the time of his death, are left too incomplete for the public eye. Thus he toiled through a long life for the good of mankind; and it may be truly said, that he did not live and toil in vain. His amusing and instructive talents, his facetiousness, his eloquence, his science, his good œconomy in acquiring wealth, his well-directed liberality in employing it, are all secured by durable monuments.

Dr Hunter had been ill for some time, and had so far recovered as to be able to sit up. While in this state, his anxiety for his pupils made him wish to give the introductory lecture to the operations of surgery; he accordingly gave it, and the fatigue he underwent occasioned a relapse of his disease, which terminated fatally notwithstanding the utmost skill and attention of his Physicians.

Dr Hunter has bequeathed his very valuable museum to the University of Glasgow. But the use of it for thirty years is reserved to the ingenious Mr Cruikshank, who has been for some

time his partner as an anatomical teacher, and to his nephew Mr Matthew Baillie, who has of late alſo been his aſſiſtant in the ſame department. He has alſo left to the Univerſity of Glaſgow the ſum of L. 8000, which is to be paid them within two years. One half of the intereſt of this ſum is to be applied for ſupporting the muſeum while it remains in London. The other half, together with the whole capital, is at the immediate diſpoſal of the Univerſity of Glaſgow, for the purpoſe of buying ground and erecting proper buildings for the reception of his muſeum, and of making ſuch eſtabliſhments as they think may tend to promote medical and natural knowledge. The object which Dr Hunter evidently had in view by the above deſtination, was to perpetuate thoſe ſignal benefits which the public derived during his life, from his uncommon abilities and unremitting ardour in the purſuit of learning, ſcience, and medical diſcoveries. And there is no reaſon to doubt, that his two immediate ſucceſſors in the line of anatomy, Mr Cruikſhank and Mr Baillie, as well as the Univerſity of Glaſgow, will endeavour to diſcharge the truſt repoſed in them, in ſuch a manner as will reflect the higheſt honour on the memory of Dr Hunter.

## SECT. IV.

### *List of New Books.*

OBSERVATIONS on the ſtructure and functions of the nervous ſyſtem, illuſtrated with tables. By *Alexander Monro*, M. D. Preſident of the Royal College of Phyſicians, and Profeſſor of Phyſic, Anatomy and Surgery in the univerſity of Edinburgh. Folio. Edinburgh.

Conſpectus medicinæ theoreticæ, in uſum academicum. Auctore *Jacobo Gregory*, M. D. Med. Theoret. in Acad. Ed. Prof. Vol. II. 8vo. Edinburgi.

Pharmacopœia collegii regii medicorum Edinburgenſis. Editio ſeptima. 8vo. Edinburgi. 1783.

A ſyſtem of ſurgery. By *Benjamin Bell*, Member of the Royal College of Surgeons in Edinburgh,

burgh, and one of the Surgeons to the Royal Infirmary of that city. Illustrated with copper-plates. Vol. I. 8vo. Edinburgh.

First lines of the practice of physic, for the use of students in the university of Edinburgh. By *William Cullen*, M. D. Professor of the Practice of Physic in the university of Edinburgh, first Physician to his Majesty for Scotland, *&c.* Vol. III. 8vo. Edinburgh.

Philosophical Transactions. Vol. LXXII. 4to. London.

A system of the practice of medicine, from the Latin of Dr Hoffman; in two volumes. By the late *William Lewis*, M. B. F. R. S. Revised and completed by *Andrew Duncan*, M. D. 8vo. London.

A narrative of a singular gouty case, with observations. By *John Lee*, M. D. 8vo. London.

The valetudinarian's companion; or observations on air, exercise, and regimen, with the medical properties of the sea and mineral waters of Brighthelmston. By *Loftus Wood*, M. D. 8vo. London.

A description of the influenza, with its distinction and method of cure. By *R. Hamilton*, M. D. 8vo. London.

Memoirs of the life, and a view of the character of the late Dr John Fothergill. By *Gilbert Thompſon*, M. D. 8vo. London.

Obſervations on the ſulphur-water at Croft near Darlington. By *Robert Willian*, M. D. 8vo. London.

An inquiry into the ſtate of medicine, on the true principles of inductive philoſophy; with an appendix, containing practical caſes and obſervations. By *Robert Jones*, M. D. 8vo. London.

A letter to Dr Robert Jones of Caermarthenſhire, in anſwer to the account which he has publiſhed of the caſe of Mr John Braham-Iſaacſon, ſtudent of medicine, and to the injurious aſperſions which he has thrown out againſt the phyſicians who attended Mr Iſaacſon. By *Andrew Duncan*, M. D. 8vo. London.

New thoughts on medical electricity; or an attempt to diſcover the real uſes of electricity in medicine; including a very remarkable caſe; in two letters to a friend. 8vo. London.

An inquiry into the nature of the venereal poiſon, and the remedies made uſe of to prevent its effects, principally with reſpect to lotions, pomades, and injections; addreſſed particularly

to

to young men. By *J. Clubbe*, Surgeon at Ipſwich. 8vo. London.

A letter addreſſed to Dr Stevenſon of Newark, occaſioned by a poſtſcript publiſhed in the ſecond edition of his medical caſes; with remarks on four letters written by Philip Thickneſſe, Eſq. By *Edward Harriſon*, Member of the Royal Medical Society at Edinburgh.

A medical and philoſophical eſſay on the theory of the gout. 8vo. London.

An epiſtle to Dr Falconer of Bath. By *Philip Thickneſſe*. 8vo. London.

Short ſtrictures on the method of treatment recommended by Dr Dawſon, in the acute rheumatiſm. By *Thomas Sanden*, M. D. 12mo. London.

An hiſtorical ſketch of medicine and ſurgery, from their origin to the preſent time; and of the principal authors, diſcoveries, improvements and errors. By *William Black*, M. D. 8vo. London.

Elements of the theory and practice of medicine and ſurgery. By *John Aitken*, M. D. 8vo. London.

An account of ſome experiments on mercury, ſilver and gold, made at Guildford in May 1782, in the laboratory of James Price, M. D. F. R. S.

To which is prefixed an abridgment of Boyle's account of a degradation of gold. 4to. Oxford.

Lettre ſur les expériences des frictions glaciales, pour la guériſon de la peſte et autres maladies putrides. Par *D. Samoilowitz*, M. D. 8vo. Paris.

Catalogue ſyſtematique des arbres et arbuſtes etrangers, la plupart de l'Amerique ſeptentrionale, cultivé dans le jardin Americain, à la terre de Madame la Comteſſe de Hohenheim, et qui paſſent l'hiver en plein champ. 16mo. Studgard.

Deſcription, uſage, et avantages de la machine pour reduire les fractures des jambes, inventée par Dom. Alb. Pieropan de Vicence. Par *M. Mongez*. 8vo. Paris.

Notions elementaires de botanique, avec l'explication d'une carte, compoſée pour ſervir aux cours publics de l'academie de Dijon. 8vo. Dijon.

Diſſertation chemique ſur les eaux minerales de Lorraine. Par *M. Nicolas*. 8vo. Paris.

Traité des eaux minerales de Chateldon, de celles de Vichy et de Hauterive en Bourbonnois, avec le detail de leurs proprietés medicinales et leur analyſe. Par *M. Debreſt*, M. D. 12mo. Moulins.

Eſſai

Essai sur les alimens, pour servir de commentaire aux livres dietetiques d'Hippocrate. Par *C. Lory*, M. D. *&c.* 12mo. Paris.

Traité des proprietés et usage de la douce amere, ou solanum scandens, dans la traitement de plusieurs maladies, et surtout des maladies dartreuses. Par *M. Carnere.* 8vo. Paris.

Memoires sur les observations meteorologiques, faites à Franeker en Frise, pendant l'année 1779. Par *M. Van Swinden.* 8vo. Amsterdam.

Traité general des pêches, et histoire des poissons, ou des animaux qui vivent dans l'eau. Par *M. Duhamel de Monceau.* Vol. III. Sect. ix. 4to. Paris.

De l'electricité du corps humain dans l'etat de santé et de maladie;—ouvrage couronnée par l'academie de Lyon; dans lequel on traite de l'electricité de l'atmosphere, de son influence, et de ses effêts sur l'economie animale. Par *M. l'Abbé Bertholon* de S. Lazare. 12mo. Paris.

Dissertation sur les avantages de l'allaitement des enfans par leurs meres; ouvrage qui a eté couronné par la faculté de medecine de Paris, dans sa seance publique, le 9 Decembre 1779. Par *M. Landais.* 8vo. Paris.

Dissertatio

Diſſertatio medica de ſenſibilitate oſſium morboſa, quam, Præſide Adolpho Murray, ſuſtinuit *Laurentius Brandelius*, M. A. 4to. Upſal.

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